PLEASE PRI

Scientific and Technical Information Center SEARCH REQUEST FORM

/00 4/111
Requester's Full Name: QQZ Examiner #: 7414 Date: 7/17/06  Art Unit: 1616 Phone Number: 2- 0677 Serial Number: 10/630 262  Location (Bldg/Room#): 445 (Mailbox #): 470 Results Format Preferred (circle): PAPER DISK
To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:  Title of Invention: See adached
Inventors (please provide full names): See attached
Earliest Priority Date:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Woble -

This search was either lost/misplaced.
Please search ASAP as a RUSH!

STN

=> b reg
FILE 'REGISTRY' ENTERED AT 14:00:22 ON 18 JUL 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 17 JUL 2006 HIGHEST RN 893880-40-5 DICTIONARY FILE UPDATES: 17 JUL 2006 HIGHEST RN 893880-40-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

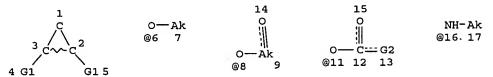
TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> d que sta 13 L1 ( 471233)SEA FILE=REGISTRY ABB=ON PLU=ON C3/ESS L2 STR



Ak—N—Ak O——S—G3 18 @19 20 @21 22 23

VAR G1=6/8/11/21/X
VAR G2=6/NH2/16/19
VAR G3=AK/CY
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 7
CONNECT IS M2 RC AT 9
CONNECT IS X4 RC AT 22
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

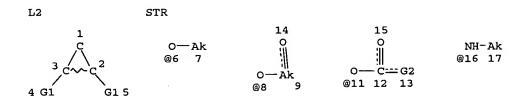
L3 2427 SEA FILE=REGISTRY SUB=L1 SSS FUL L2

100.0% PROCESSED 105321 ITERATIONS SEARCH TIME: 00.00.01

2427 ANSWERS

=> d que sta 119 L1 ( 471233)SEA FILE=REGISTRY ABB=ON PLU=ON C3/ESS

noble jarrell 18/07/2006



Ak—N—Ak 0—S—G3 18 @19 20 @21 22 23

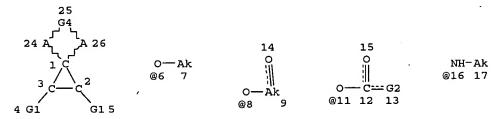
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VAR G2=6/NH2/16/19
VAR G3=AK/CY
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 7
CONNECT IS M2 RC AT 9
CONNECT IS X4 RC AT 22
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

# GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

L3 2427 SEA FILE=REGISTRY SUB=L1 SSS FUL L2 L14 STR



Ak—N—Ak O=== S== G3 18 @19 20 @21 22 23

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VAR G2=6/NH2/16/19
VAR G3=AK/CY
REP G4=(2-15) A
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 7
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CONNECT IS X4 RC AT 22
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

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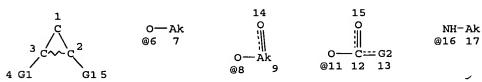
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STEREO ATTRIBUTES: NONE

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L19 0 SEA FILE=REGISTRY ABB=ON PLU=ON L16 AND I/ELS

=> d que sta l21 L1 ( 471233)SEA FILE=REGISTRY ABB=ON PLU=ON C3/ESS L2 STR



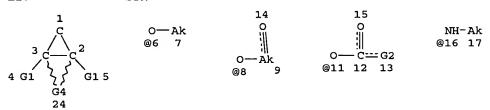
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VAR G3=AK/CY
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 7
CONNECT IS M2 RC AT 9
CONNECT IS X4 RC AT 22
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

L3 2427 SEA FILE=REGISTRY SUB=L1 SSS FUL L2 L17 STR



VAR G1=6/8/11/21/X
VAR G2=6/NH2/16/19
VAR G3=AK/CY
REP G4=(3-16) A
NODE ATTRIBUTES:
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CONNECT IS M2 RC AT 9
CONNECT IS X4 RC AT 22
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

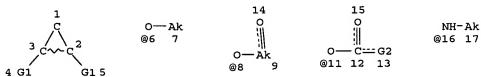
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STEREO ATTRIBUTES: NONE

L20 396 SEA FILE=REGISTRY SUB=L3 SSS FUL L17

L21 6 SEA FILE=REGISTRY ABB=ON PLU=ON L20 AND I/ELS

=> d que sta 125 L1 ( 471233)SEA FILE=REGISTRY ABB=ON PLU=ON C3/ESS L2 STR



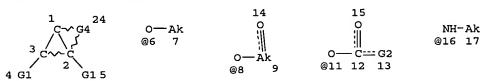
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VAR G1=6/8/11/21/X
VAR G2=6/NH2/16/19
VAR G3=AK/CY
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 7
CONNECT IS M2 RC AT 9
CONNECT IS X4 RC AT 22
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

L3 2427 SEA FILE=REGISTRY SUB=L1 SSS FUL L2 L22 STR



Ak—N—Ak O---- S--- G3 18 @19 20 @21 22 23

VAR G1=6/8/11/21/X
VAR G2=6/NH2/16/19
VAR G3=AK/CY
REP G4=(3-16) A
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 7
CONNECT IS M2 RC AT 9
CONNECT IS X4 RC AT 22
DEFAULT MLEVEL IS AŢOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

L24 643 SEA FILE=REGISTRY SUB=L3 SSS FUL L22

L25 1 SEA FILE=REGISTRY ABB=ON PLU=ON L24 AND I/ELS

=> d ide can 15 tot

ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN L5

RN 653605-61-9 REGISTRY

ED

Entered STN: 24 Feb 2004 Cyclopropane, 1,2-diiodo-1-methyl- (9CI) (CA INDEX NAME) CN

3D CONCORD FS

MF C4 H6 I2

CA SR

LC STN Files: CA, CAPLUS, USPATFULL



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:148093

=> d ide can lll tot

L11 ANSWER 1 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

653605-61-9 REGISTRY

ED Entered STN: 24 Feb 2004

Cyclopropane, 1,2-diiodo-1-methyl- (9CI) (CA INDEX NAME) CN

FS 3D CONCORD

MF C4 H6 I2

SR CA

STN Files: CA, CAPLUS, USPATFULL LC



#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1: 140:148093 REFERENCE

L11 ANSWER 2 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 653605-60-8 REGISTRY

Entered STN: 24 Feb 2004 ED

Benzene, [(1,2-diiodocyclopropyl)methyl]- (9CI) (CA INDEX NAME) CN

3D CONCORD FS

C10 H10 I2 MF

SR

STN Files: CA, CAPLUS, USPATFULL LC

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:148093

L11 ANSWER 3 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 653605-59-5 REGISTRY

ED Entered STN: 24 Feb 2004

CN Cyclopropane, 1,2-diiodo-1-octyl- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C11 H20 I2

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:148093

L11 ANSWER 4 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 208588-05-0 REGISTRY

ED Entered STN: 16 Jul 1998

CN Benzene, [(3-butyl-2,2-dichloro-1-iodocyclopropyl)thio] - (9CI) (CA INDEX

NAME)

FS 3D CONCORD

MF C13 H15 C12 I S

SR CA

LC STN Files: CA, CAPLUS

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 129:54423

L11 ANSWER 5 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 186520-95-6 REGISTRY

ED Entered STN: 27 Feb 1997

CN 9-Undecenenitrile, 11-(1,2-diiodo-2-pentylcyclopropyl)-, (Z)- (9CI) (CA INDEX NAME)

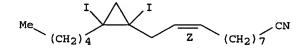
FS STEREOSEARCH

MF C19 H31 I2 N

SR CA

LC STN Files: CA, CAPLUS

Double bond geometry as shown.



#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 126:143996

L11 ANSWER 6 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 186520-94-5 REGISTRY

ED Entered STN: 27 Feb 1997

CN 9,12-Tetradecadienenitrile, 14-(2-ethyl-1,2-diiodocyclopropyl)-, (Z,Z)-

(9CI) (CA INDEX NAME)

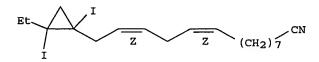
FS STEREOSEARCH

MF C19 H29 I2 N

SR CA

LC STN Files: CA, CAPLUS

Double bond geometry as shown.



### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 126:143996

L11 ANSWER 7 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 186520-93-4 REGISTRY

ED Entered STN: 27 Feb 1997

CN Cyclopropanepentanenitrile, 1,2-diiodo-2-(2,5-undecadienyl)-, (Z,Z)- (9CI)

(CA INDEX NAME)

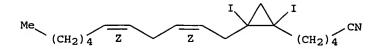
FS STEREOSEARCH

MF C19 H29 I2 N

SR CA

LC STN Files: CA, CAPLUS

Double bond geometry as shown.



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 126:143996

L11 ANSWER 8 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 152389-82-7 REGISTRY

ED

Entered STN: 20 Jan 1994 Cyclopropane, 1,2-dibutyl-1,2-diiodo-, cis- (9CI) (CA INDEX NAME) CN

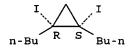
FS STEREOSEARCH

MF C11 H20 I2

SR CA

LC STN Files: CA, CAPLUS, CASREACT

Relative stereochemistry.



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 120:77057

L11 ANSWER 9 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

152389-81-6 REGISTRY RN

Entered STN: 20 Jan 1994 ED

Cyclopropane, 1,2-dibutyl-1,2-diiodo-, trans- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Cyclopropane, 1,2-dibutyl-1,2-diiodo-, trans-(±)-

FS STEREOSEARCH

MF C11 H20 I2

SR CA

LC STN Files: CA, CAPLUS, CASREACT

Relative stereochemistry.



#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1: 120:77057 REFERENCE

L11 ANSWER 10 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 148352-34-5 REGISTRY

ED Entered STN: 29 Jun 1993

CN Cyclopropane, 1,1-dibromo-2-iodo-2,3-dimethyl-, trans- (9CI) (CA INDEX

NAME)

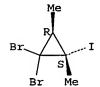
FS STEREOSEARCH

MF C5 H7 Br2 I

SR CA

LC STN Files: CA, CAPLUS

Relative stereochemistry.



#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 119:116836

L11 ANSWER 11 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 148352-33-4 REGISTRY

ED Entered STN: 29 Jun 1993

CN Cyclopropane, 1,1-dibromo-2-iodo-2,3-dimethyl-, cis- (9CI) (CA INDEX

NAME)

FS STEREOSEARCH

MF C5 H7 Br2 I

SR CA

LC STN Files: CA, CAPLUS

Relative stereochemistry.



#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 119:116836

L11 ANSWER 12 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 105285-97-0 REGISTRY

ED Entered STN: 22 Nov 1986

CN Cyclopropane, 1,2-diiodo-, (1R,2R)-rel- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Cyclopropane, 1,2-diiodo-, trans-

OTHER NAMES:

CN trans-1,2-Diiodocyclopropane

FS STEREOSEARCH

MF C3 H4 I2

SR CA

LC STN Files: BEILSTEIN\*, CA, CAPLUS, USPATFULL

(\*File contains numerically searchable property data)

Relative stereochemistry.



#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1907 TO DATE)

3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:148093

REFERENCE 2: 140:93628

REFERENCE 3: 105:225635

L11 ANSWER 13 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 105285-96-9 REGISTRY

ED Entered STN: 22 Nov 1986

CN Cyclopropane, 1,2-diiodo-, (1R,2S)-rel- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Cyclopropane, 1,2-diiodo-, cis-

OTHER NAMES:

CN cis-1,2-Diiodocyclopropane

FS STEREOSEARCH

MF C3 H4 I2

SR CA

LC STN Files: BEILSTEIN\*, CA, CAPLUS

(\*File contains numerically searchable property data)

Relative stereochemistry.



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:93628

REFERENCE 2: 105:225635

L11 ANSWER 14 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 103867-96-5 REGISTRY

ED Entered STN: 24 Aug 1986

CN Cyclopropanecarbonitrile, 1,2,2-triiodo- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C4 H2 I3 N

SR CA

LC STN Files: CA, CAPLUS, CASREACT

#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 105:97027

L11 ANSWER 15 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 22485-44-5 REGISTRY

ED Entered STN: 16 Nov 1984

CN Cyclopropane, pentafluoroiodo- (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN Iodopentafluorocyclopropane

FS 3D CONCORD

MF C3 F5 I

LC STN Files: BEILSTEIN\*, CA, CAPLUS, TOXCENTER, USPATFULL (\*File contains numerically searchable property data)



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 121:304037

REFERENCE 2: 90:136877

REFERENCE 3: 80:3136

REFERENCE 4: 70:46649

L11 ANSWER 16 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 19533-52-9 REGISTRY

ED Entered STN: 16 Nov 1984

CN Cyclopropane, 1,2-diiodo- (6CI, 8CI) (CA INDEX NAME)

FS 3D CONCORD

MF C3 H4 I2

LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, TOXCENTER (\*File contains numerically searchable property data)



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 55:37793

REFERENCE 2: 24:16890

L11 ANSWER 17 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 19533-51-8 REGISTRY

ED Entered STN: 16 Nov 1984

CN Cyclopropane, 1-bromo-2-iodo- (8CI) (CA INDEX NAME)

FS 3D CONCORD

MF C3 H4 Br I



#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L11 ANSWER 18 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 19533-49-4 REGISTRY

ED Entered STN: 16 Nov 1984

CN Cyclopropane, 1-chloro-2-iodo- (8CI) (CA INDEX NAME)

FS 3D CONCORD

MF C3 H4 Cl I



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L11 ANSWER 19 OF 19 REGISTRY COPYRIGHT 2006 ACS on STN

RN 17371-09-4 REGISTRY

ED Entered STN: 16 Nov 1984

CN Cyclopropane, 1,1-dichloro-2-iodo-2,3,3-trifluoro- (8CI) (CA INDEX NAME)

FS 3D CONCORD

MF C3 C12 F3 I

LC STN Files: BEILSTEIN\*, CA, CAPLUS

(\*File contains numerically searchable property data)



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

- 1 REFERENCES IN FILE CA (1907 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 68:25302

=> b hcap FILE 'HCAPLUS' ENTERED AT 14:01:22 ON 18 JUL 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 18 Jul 2006 VOL 145 ISS 4 FILE LAST UPDATED: 17 Jul 2006 (20060717/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

L36 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN

=> d all fhitstr 136 tot

CLASS

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EP 1388529 ICM C07C-0017/04

```
AN
    2004:117244 HCAPLUS
     140:148093
DN
ED
     Entered STN: 13 Feb 2004
    Stable ethylene inhibiting compounds and their preparation
ΤI
IN Jacobson, Richard Martin; Kelly, Martha Jean; James,
     William Nixon, Jr.
    Rohm and Haas Company, USA
PA
SO
    Eur. Pat. Appl., 17 pp.
     CODEN: EPXXDW
DT
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    English
LA
    ICM C07C-0017/04
IC
     ICS C07C-0023/04; C07C-0017/23; A01N-0003/02; A01N-0027/00
     45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
     Section cross-reference(s): 11, 23
FAN.CNT 1
                                          APPLICATION NO.
    PATENT NO.
                       KIND DATE
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                        A2 20040430 2003JP-0286729
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PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

noble jarrell 18/07/2006

\_\_\_\_\_

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                        [ICS,7,C*]; C07C0017-23 [ICS,7]; C07C0017-00
                        [ICS,7,C*]; A01N0003-02 [ICS,7]; A01N0003-00
                        [ICS,7,C*]; A01N0027-00 [ICS,7]
                IPCR
                        C07C0017-00 [I,A]; C07C0017-00 [I,C*]; C07C0017-02
                        [I,A]; C07C0017-10 [I,A]; C07C0017-26 [I,A];
                        C07C0023-00 [I,C*]; C07C0023-04 [I,A]; C07C0023-18
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                        4H011/CB10; 4H011/CB11
OS
     MARPAT 140:148093
AB
     A method to inhibit the ethylene response in plants with cyclopropene
     compds. is achieved by first generating stable cyclopropane precursor
     compds. and then converting these compds. to the gaseous cyclopropene
     antagonist compound using a reducing or nucleophilic agent.
ST
     ethylene inhibitor cyclopropene deriv
     141493-79-0P, 1,1,2-Tribromo-2-hexylcyclopropane
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (cyclic reaction with bromoform; cyclopropene derivative as ethylene
        inhibiting compds.)
TΤ
     13249-60-0P, .2-Bromooct-1-ene
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
     (Reactant or reagent)
        (cyclic reaction with bromoform; cyclopropene derivative as ethylene
        inhibiting compds.)
IT
     593-60-2, Vinyl bromide
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (cyclic reaction with bromoform; cyclopropene derivative as ethylene
        inhibiting compds.)
IT
     74-85-1, Ethylene, miscellaneous
     RL: MSC (Miscellaneous)
     (cyclopropene derivative as ethylene inhibiting compds.) 75-25-2, Bromoform 513-31-5, 2,3-Dibromopropene
TT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (cyclopropene derivative as ethylene inhibiting compds.)
ΤT
     653605-61-9P
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
     (Reactant or reagent)
        (precursor and reduction with zinc; cyclopropene derivative as ethylene
        inhibiting compds.)
IT
     40745-72-0P 105285-97-0P, trans-1,2-Diiodocyclopropane
     178425-55-3P 653605-59-5P 653605-60-8P
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (precursor; cyclopropene derivative as ethylene inhibiting compds.)
     3100-04-7, 1-Methylcyclopropene
TT
     RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological
     study); RACT (Reactant or reagent); USES (Uses)
        (reaction with iodine and ethylene antagonist; cyclopropene derivative as
        ethylene inhibiting compds.)
IT
     75-19-4, Cyclopropane
                             50915-83-8, 1-Octylcyclopropene
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction with iodine; cyclopropene derivative as ethylene inhibiting
        compds.)
IT
     67-66-3, Chloroform, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction with vinyl bromide; cyclopropene derivative as ethylene
        inhibiting compds.)
IT
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     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
     (Reactant or reagent)
        (precursor and reduction with zinc; cyclopropene derivative as ethylene
        inhibiting compds.)
RN
     653605-61-9 HCAPLUS
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CN Cyclopropane, 1,2-diiodo-1-methyl- (9CI) (CA INDEX NAME)



## => d all hitstr 142 tot

L42 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:961457 HCAPLUS

DN 140:93628

ED Entered STN: 10 Dec 2003

TI Electronic and geometrical structures of cyclopropanes. Part 2.
Photoelectron spectra and electronic structures of halogenocyclopropanes.
Linear correlation of ionization energies with C-C bond lengths

AU Rademacher, Paul; Poppek, Rainer; Kowski, Klaus; Schrumpf, Gerd

CS Institut fur Organische Chemie, Universitat Duisburg-Essen, Essen, 45117, Germany

SO Journal of Molecular Structure (2003), 661-662, 247-258 CODEN: JMOSB4; ISSN: 0022-2860

PB Elsevier Science B.V.

DT Journal

LA English

CC 22-9 (Physical Organic Chemistry)
Section cross-reference(s): 73

AB PE spectra of six chloro-(1-6), four bromo-(7-10) and two iodocyclopropanes (11, 12) have been measured and analyzed using semiempirical PM3 and DFT B3LYP calcns. The spectra are dominated by strong ionizations of electrons from the halogen atoms. The first IP of all chloro derivs. has a rather constant value of 10.22-10.32 eV. The same holds for the bromo (IP1: 9.90-9.94 eV) and the iodo derivs. (IP1: 9.13-9.15 eV). In the central region of the spectra, ionizations related to the Walsh orbitals ωA (IP: 11.2-14.2 eV) and ωS (IP: 11.6-13.9 eV), which interact to different extents with n orbitals of the halogens, are found. A linear relationship, ΔIPω = 0.375 Δr + 0.165, between ΔIPω (in eV), the difference of the IPs related to the Walsh orbitals ωS and ωA of the three-membered ring, and Δr (in pm), the difference of vicinal and distal C-C bond lengths, is established.

ST halogenocyclopropane electronic structure photoelectron spectroscopy DFT

IT Bond length

(carbon-carbon; photoelectron spectroscopy and DFT study on electronic structure of halogenocyclopropanes)

IT Correlation analysis

(ionization energy vs. C-C bond length; photoelectron spectroscopy and DFT study on electronic structure of halogenocyclopropanes)

IT Molecular structure

(optimized; photoelectron spectroscopy and DFT study on electronic structure of halogenocyclopropanes)

IT Electronic structure

Formation enthalpy

Ionization potential

Photoelectron spectra

Total energy

(photoelectron spectroscopy and DFT study on electronic structure of halogenocyclopropanes)

IT Ionization potential

(vertical; photoelectron spectroscopy and DFT study on electronic structure of halogenocyclopropanes)

IT 2088-35-9, 1,1-Dichlorocyclopropane 4333-56-6, Bromocyclopropane 7393-45-5, Chlorocyclopropane 16837-83-5, trans-1,2-Dibromocyclopropane

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                                      109636-12-6, cis-1,2,3-Tribromocyclopropane
     RL: PRP (Properties)
         (photoelectron spectroscopy and DFT study on electronic structure of
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RE.CNT
        62
              THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS RECORD
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trans-1,2-Diiodocyclopropane

RL: PRP (Properties)

(photoelectron spectroscopy and DFT study on electronic structure of halogenocyclopropanes)

RN 105285-96-9 HCAPLUS

CN Cyclopropane, 1,2-diiodo-, (1R,2S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 105285-97-0 HCAPLUS

CN Cyclopropane, 1,2-diiodo-, (1R,2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



- L42 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
- AN 1998:319636 HCAPLUS
- DN 129:54423
- ED Entered STN: 29 May 1998
- TI Highly functionalized selenocyclopropanes from 1-halo-1-chalcogeno alkenes
- AU Stefani, Helio A.; Petragnani, Nicola; Comasseto, Joao V.; Braga, Antonio L.; Menezes, Paulo H.
- CS Faculdade de Ciencias Farmaceuticas, Departamento de Farmacia, Universidade de Sao Paulo, Sao Paulo, Brazil
- SO Synthetic Communications (1998), 28(9), 1667-1677 CODEN: SYNCAV; ISSN: 0039-7911
- PB Marcel Dekker, Inc.
- DT Journal
- LA English
- CC 29-8 (Organometallic and Organometalloidal Compounds) Section cross-reference(s): 24
- OS CASREACT 129:54423

GI

AB Dicloro and dibromo carbenes, generated under phase transfer conditions, add to 1-halo-1-chalcogeno alkenes, to give highly functionalized selenocyclopropanes in good yields. For example alkenes I (X = Cl, Br, I) underwent cyclopropanation with dichlorocarbene to yield II (X = Cl, Br, I) in 71-83% yield.

ST selenocyclopropane prepn cyclopropanation selenoalkene dichlorocarbene dibromocarbene; carbene dichloro dibromo cyclopropanation selenium alkene; alkene halo chalcogeno cyclopropanation dihalocarbene; phase transfer generated dichlorocarbene dibromocarbene

IT Cyclopropanation

(preparation of highly functionalized selenocyclopropanes from reaction of halo chalcogeno alkenes with dichloro and dibromo carbenes under phase transfer conditions)

IT Alkenes, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(seleno; cyclopropanation with dichloro and dibromo carbenes generated under phase transfer conditions, in synthesis of selenocyclopropanes)

IT 155169-80-5 155169-81-6 155169-82-7 208588-06-1 208588-07-2 208588-08-3 208588-09-4 208588-10-7 208588-11-8 208588-12-9 208588-13-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(cyclopropanation with dichloro and dibromo carbenes generated under phase transfer conditions, in synthesis of selenocyclopropanes)

IT 208587-93-3P 208587-94-4P 208587-95-5P 208587-96-6P 208587-97-7P 208587-98-8P 208587-99-9P 208588-00-5P 208588-01-6P 208588-02-7P 208588-03-8P 208588-04-9P 208588-05-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of highly functionalized selenocyclopropanes from reaction of halo chalcogeno alkenes with dichloro and dibromo carbenes under phase transfer conditions)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

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- IT 208588-05-0P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of highly functionalized selenocyclopropanes from reaction of halo chalcogeno alkenes with dichloro and dibromo carbenes under phase transfer conditions)

RN 208588-05-0 HCAPLUS

CN Benzene, [(3-butyl-2,2-dichloro-1-iodocyclopropyl)thio]- (9CI) (CA INDEX NAME)

L42 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:39340 HCAPLUS

DN 126:143996

ED Entered STN: 18 Jan 1997

TI Synthesis of putative  $\Delta 6$ -, $\Delta 12$ - and  $\Delta 15$ -desaturase inhibitors

AU Al Dulayymi, Juma'a R.; Baird, Mark S.; Dale, Cynthia M.; Grehan, Brendan J.; Shortt, M. Fiona

CS Dep. Chemistry, Univ. Wales, Bangor, Gwynedd, LL57 2UW, UK

SO Tetrahedron (1997), 53(3), 1099-1110

CODEN: TETRAB; ISSN: 0040-4020

PB Elsevier

DT Journal

LA English

CC 26-3 (Biomolecules and Their Synthetic Analogs)

GΙ

$$Me(CH_2)_4$$
 (CH<sub>2</sub>)  $_4CO_2Me$  II

- AB Cyclopropene fatty acid esters I-III have been synthesized as potential structure-based inhibitors of  $\Delta 6$ -, $\Delta 12$  and  $\Delta 15$ -desaturases.
- ST ethylcyclopropenyltetradecadienoate prepn; pentylcyclopropenylundecenoate prepn; undecadienylcyclopropenylpentanoate prepn; cyclopropenyl unsatd fatty acid ester prepn

IT Fatty acids, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)
(unsatd., esters; preparation of cyclopropenyl unsatd. fatty acid esters as desaturase inhibitors)

IT 107-19-7, Propargyl alcohol 110-53-2, 1-Bromopentane 3252-91-3, 2-Bromo-1-heptene 6940-78-9, 1-Bromo-4-chlorobutane 23074-36-4, 2-Bromo-1-butene 68105-93-1, 1-Bromo-7-chloroheptane 186520-84-3 RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of cyclopropenyl unsatd. fatty acid esters as desaturase inhibitors)

IT 18495-27-7P, 1-Bromo-2-octyne 10297-06-0P, 6-Chloro-1-hexyne 20739-58-6P, 2-Octyn-1-ol 35378-79-1P, 2,5-Undecadiyn-1-ol 75817-50-4P 141493-78-9P 157978-76-2P 186520-79-6P, 75817-51-5P 136339-45-2P 2-Bromo-6-chloro-1-hexene 186520-80-9P 186520-81-0P 186520-82-1P 186520-86-5P 186520-83-2P 186520-85-4P 186520-87-6P 186520-88-7P 186520-89-8P 186520-92-3P 186520-90-1P 186520-91-2P 186520-93-4P 186520-94-5P 186520-95-6P 186520-96-7P 186520-97-8P 186520-98-9P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of cyclopropenyl unsatd. fatty acid esters as desaturase inhibitors) TT 186520-99-0P 186521-00-6P 186521-01-7P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of cyclopropenyl unsatd. fatty acid esters as desaturase inhibitors) RE.CNT THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD (1) Al Dulayymi, J; Tetrahedron 1996, V38, P12509 (2) Al Dulayymi, J; Unpublished results (3) Andiranaivofehivola, A; Biochim Biophys Acta 1993, P1210 (4) Ando, T; J Pesticide Sci 1995, V20, P25 HCAPLUS (5) Andrianaivorafehivola, A; Food and Chemical Toxicology 1995, V33, P377 **HCAPLUS** (6) Andrianaivorafehivola, A; Oleagineux 1994, V49, P177 HCAPLUS (7) Andrianaivorafehivola, A; Revue Francaise des Corps Gras 1994, V41, P53 HCAPLUS (8) Arsequell, G; Chem and Phys Lipids 1992, V63, P149 HCAPLUS (9) Arsequell, G; Insect Biochem 1989, V19, P623 HCAPLUS (10) Baird, M; J Chem Soc Perkin Trans 1 (11) Baird, M; J Chem Soc Perkin Trans I 1993, P1547 HCAPLUS (12) Baird, M; Tetrahedron Letts 1992, P1521 HCAPLUS (13) Barbier, M; Bull Soc Chim Fr 1961, P1324 HCAPLUS (14) Besra, G; Chem Phys Lipids 1993, V66, P35 HCAPLUS (15) Binder, R; Ent Exp Appl 1982, V31, P291 HCAPLUS (16) Booyens, J; Medical Hypotheses 1985, V18, P53 HCAPLUS (17) Brandsma, L; Studies in Organic Chemistry, 2 dn Edn 1988, P59 (18) Brenner, R; Lipids 1970, V6, P567 (19) Brown, C; J Chem Soc, Chem Comm 1973, P553 HCAPLUS (20) Brown, C; J Org Chem 1973, V38, P2226 HCAPLUS (21) Corvin, L; Exp Cell Res 1977, V108, P341 (22) Cousseau, J; Synthesis 1980, P805 HCAPLUS (23) Fermor, B; Eur J Cancer 1992, V28A, P1143 HCAPLUS (24) Fogerty, A; Lipids 1977, V7, P335 (25) Gleason, J; US---4352757 HCAPLUS (26) Gleason, J; Tetrahedron Letts 1980, P1129 HCAPLUS (27) Gosalbo, L; Arch Insect Biochem and Phys 1994, V26, P279 HCAPLUS (28) Gosalbo, L; Insect Biochem and Mol Biol 1992, V22, P687 HCAPLUS (29) Gosalbo, L; Lipids 1993, V28, P1125 HCAPLUS (30) Graham, J; Evening Primrose Oil 1993 (31) Grandall, J; Tetrahedron Letts 1991, P3659 (32) Hardy, D; Phytochemistry 1991, V30, P2889 HCAPLUS (33) Hartmann, S; Chem Phys Lipids 1994, V65, P99 (34) Horrobin, D; Am J Clinical Nutr 1993, V57, P732S HCAPLUS (35) Horrobin, D; Medical Hypotheses 1981, V7, P1211 HCAPLUS (36) James, A; Eur J Biochem 1968, V3, P318 HCAPLUS (37) Jeffcoat, R; Lipids 1977, V12, P480 HCAPLUS(38) Johnson, A; Lipids 1969, V4, P265 HCAPLUS (39) Johnson, A; Nature (London) 1967, V214, P1244 HCAPLUS (40) Khoo, D; Brit J Cancer 1991, V63, P97 HCAPLUS (41) Macfarlane, J; Nature (London) 1957, V179, P830 MEDLINE (42) Masson, J; Texas Agr Expt Sta Bull 1893, V29, P347 (43) Moreton, R; E P Appl, 853 01700.2 1985 (44) Moreton, R; Single Cell Oil 1985 (45) Morris, L; Chem Ind (London) 1967, P32 HCAPLUS (46) Nunn, J; J Chem Soc 1952, P313 HCAPLUS

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- 186520-93-4P 186520-94-5P 186520-95-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

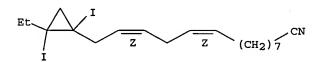
(preparation of cyclopropenyl unsatd. fatty acid esters as desaturase inhibitors)

- 186520-93-4 HCAPLUS RN
- CN Cyclopropanepentanenitrile, 1,2-diiodo-2-(2,5-undecadienyl)-, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 186520-94-5 HCAPLUS
- 9,12-Tetradecadienenitrile, 14-(2-ethyl-1,2-diiodocyclopropyl)-, (Z,Z)-(9CI) (CA INDEX NAME)

Double bond geometry as shown.



- RN186520-95-6 HCAPLUS
- 9-Undecenenitrile, 11-(1,2-diiodo-2-pentylcyclopropyl)-, (Z)- (9CI) (CA CN INDEX NAME)

Double bond geometry as shown.

- L42 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
- 1995:458169 HCAPLUS AN
- DN 123:198309
- ED Entered STN: 31 Mar 1995
- Cyclopropa-fusion to seven-membered unsaturated rings. The synthesis of TI 4-bromo-8,8-dimethylbicyclo[5.1.0]octa-1,4,6-trien-3-one, a cyclopropa-fused tropone
- ΑU Sims, Colette G.; Wege, Dieter
- Department of Chemistry, University of Western Australia, Nedlands, 6009, CS Australia
- Australian Journal of Chemistry (1995), 48(3), 469-90 SO CODEN: AJCHAS; ISSN: 0004-9425
- Commonwealth Scientific and Industrial Research Organization PB

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DT
     Journal
LΑ
     English
CC
     24-7 (Alicyclic Compounds)
OS
     CASREACT 123:198309
AΒ
     This paper addresses the problem of preparing novel species such as the
     cyclopropa-fused tropylium ion and cyclopropa-fused tropones and
     tropolones. Addition of dibromocarbene and dichlorocarbene to the adduct
     derived from di-Me 3,3-dimethylcyclopropene-1,2-dicarboxylate and
     buta-1,3-diene yields the anti-tricyclo[5.1.0.03,5]octyl derivs. which
     after hydrolysis and halodecarboxylation were transformed into
     (1\alpha, 3\beta, 5\beta, 7\alpha) - 1, 4, 4, 7-tetrabromo - 8, 8-
     dimethyltricyclo [5.1.0.03, 5] octane, (1\alpha, 3\beta, 5\beta, 7\alpha) -
     1,7-dibromo-4,4-dichloro-8,8-dimethyltricyclo[5.1.0.03,5]octane and
     (1\alpha, 3\beta, 5\beta, 7\alpha) -4, 4-dichloro-1, 7-diiodo-8, 8-
     dimethyltricyclo[5.1.0.03,5]octane. All of these halides were remarkably
     stable towards dehydrohalogenation and this is attributed to the rigidity
     of the tricyclic ring system. The reaction of
     (1\alpha, 3\beta, 5\beta, 7\alpha)-1,7-diiodo-8,8-
     dimethyltricyclo[5.1.0.03,5]octane with potassium tert-butoxide results in
     deiodination rather than dehydroiodination and gives a cyclopropene which
     was trapped with isobenzofuran. Addition of dibromocarbene to the
     isobenzofuran adducts derived from di-Me and di-tert-Bu
     3,3-dimethylcyclopropene-1,2-dicarboxylate and 2-trimethylsilyloxybuta-1,3-
     diene followed by ring expansion gave the tricyclo[5.1.0]octyl derivs.
     Acidic hydrolysis of the di-tert-Bu ester afforded diacid, which on
     iododecarboxylation gave 4-bromo-1,7-diiodo-8,8-dimethylbicyclo[5.1.0]oct-
     4-en-3-one. Treatment with triethylamine afforded the title compound, the
     first example of a cyclopropa-fused tropone.
ST
     cyclopropa fused tropone bromodimethylbicyclooctatrienone prepn;
     bicyclooctatrienone bromodimethyl
IT
     106-99-0, Butadiene, reactions
                                       270-75-7, Isobenzofuran
                                                                   5281-20-9,
     Acetone hydrazone
                        21603-23-6
                                       38053-91-7
                                                     66086-33-7, Di-tert-butyl
     acetylenedicarboxylate
                             72566-85-9 108186-04-5
                                                          167779-98-8
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of bromodimethylbicyclooctatrienone as example of
        cyclopropa-fused tropone)
IT
     539-80-0DP, Tropone, cyclopropa-fused derivative
                                                         167779-80-8P
                                                                          167779-81-9P
     167779-82-0P
                    167779-83-1P
                                    167779-85-3P
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     167779-90-0P
                    167779-91-1P
                                    167779-94-4P
                                                    167779-95-5P
     167779-99-9P
                    167780-00-9P
                                    167780-01-0P 167780-02-1P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of bromodimethylbicyclooctatrienone as example of
        cyclopropa-fused tropone)
TΤ
     932-55-8P 167779-79-5P
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     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of bromodimethylbicyclooctatrienone as example of
        cyclopropa-fused tropone)
IT
     167779-90-0P 167780-02-1P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of bromodimethylbicyclooctatrienone as example of
        cyclopropa-fused tropone)
     167779-90-0 HCAPLUS
RN
     Tricyclo[5.1.0.03,5]octane, 1,7-diiodo-8,8-dimethyl-,
CN
     (1\alpha, 3\beta, 5\beta, 7\alpha) - (9CI) (CA INDEX NAME)
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167780-02-1 HCAPLUS RN CN Bicyclo [5.1.0] oct-4-en-3-one, 4-bromo-1,7-diiodo-8,8-dimethyl-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

IT 167779-86-4P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of bromodimethylbicyclooctatrienone as example of cyclopropa-fused tropone)

RN 167779-86-4 HCAPLUS

CN Tricyclo [5.1.0.03,5] octane, 4,4-dichloro-1,7-diiodo-8,8-dimethyl-,  $(1\alpha, 3\beta, 5\beta, 7\alpha)$  - (9CI) (CA INDEX NAME)

L42 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

1994:704037 HCAPLUS AN

DN 121:304037

ED Entered STN: 24 Dec 1994

TT Fluoroiodocarbon blends as CFC and Halon replacements

IN Nimitz, Jonathan S.; Lankford, Lance H.

PA USA

SO PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DТ Patent

LΑ English

IC

ICM C09K-0005/04 ICS C09K-0003/30; A62D-0001/00; C08J-0009/14

48-5 (Unit Operations and Processes)

Section cross-reference(s): 38, 50, 59

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE --------**--**--------------WO---9420588 PΙ 19940915 1994WO-US02321 A1 19940303 <--W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO,

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CLASS
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                        C09K0005-04 [ICM, 6]; C09K0005-00 [ICM, 6, C*];
                        C09K0003-30 [ICS,6]; A62D0001-00 [ICS,6]; C08J0009-14
                        [ICS,6]; C08J0009-00 [ICS,6,C*]
                IPCR
                       A62D0001-00 [I,A]; A62D0001-00 [I,C*]; C08J0009-00
                        [I,C*]; C08J0009-14 [I,A]; C09K0003-30 [I,A];
                       C09K0003-30 [I,C*]; C09K0005-00 [I,C*]; C09K0005-04
                        [I,A]
                       C07C0019-16 [ICM,6]; C07C0019-00 [ICM,6,C*];
JP--08507524
                IPCI
                       C07C0043-12 [ICS,6]; C07C0043-00 [ICS,6,C*];
                       C07C0211-15 [ICS,6]; C07C0211-00 [ICS,6,C*];
C09K0003-00 [ICS,6]; C09K0003-30 [ICS,6]; C09K0005-04
                        [ICS,6]; C09K0005-00 [ICS,6,C*]; C11D0007-30 [ICS,6];
                        C11D0007-32 [ICS,6]; C11D0007-22 [ICS,6,C*];
                       C11D0007-50 [ICS,6]; C08J0009-14 [ICA,6]; C08J0009-00
                        [ICA,6,C*]; C08L0075-04 [ICI,6]; C08L0075-00 [ICI,6,C*]
RU---2140955
                IPCI
                        C09K0005-04 [ICM,6]; C09K0005-00 [ICM,6,C*];
                       C09K0003-30 [ICS,6]; C08J0009-14 [ICS,6]; C08J0009-00
                        [ICS,6,C*]; C11D0007-30 [ICS,6]; C11D0007-22
                        [ICS,6,C*]; A62D0001-00 [ICS,6]
                ECLA
                       A62D001/00C6; C08J009/14P; C09K003/30; C09K005/04B4;
                       C09K005/04B4B
AT----193903
                IPCI
                       C09K0005-04 [ICM,7]; C09K0005-00 [ICM,7,C*];
                       C09K0003-30 [ICS,7]; A62D0001-00 [ICS,7]; C08J0009-14
                        [ICS,7]; C08J0009-00 [ICS,7,C*]
                IPCR
                       A62D0001-00 [I,A]; A62D0001-00 [I,C*]; C08J0009-00
                        [I,C*]; C08J0009-14 [I,A]; C09K0003-30 [I,A];
                        C09K0003-30 [I,C*]; C09K0005-00 [I,C*]; C09K0005-04
                        [I,A]
US---5444102
                IPCI
                       C08J0009-14 [ICM,6]; C08J0009-00 [ICM,6,C*]
                IPCR
                       A62D0001-00 [I,A]; A62D0001-00 [I,C*]; C08J0009-00
                        [I,C*]; C08J0009-14 [I,A]; C09K0003-30 [I,A];
                       C09K0003-30 [I,C*]; C09K0005-00 [I,C*]; C09K0005-04
                        [I,A]
                NCL
                        521/131.000; 264/DIG.005; 521/098.000; 521/910.000
                ECLA
                       A62D001/00C6; C08J009/14P; C09K003/30; C09K005/04B4;
                        C09K005/04B4B
US---5605647
                IPCI
                       A62D0001-00 [ICM, 6]
                IPCR
                       A62D0001-00 [I,A]; A62D0001-00 [I,C*]; C08J0009-00
                        [I,C*]; C08J0009-14 [I,A]; C09K0003-30 [I,A];
                       C09K0003-30 [I,C*]; C09K0005-00 [I,C*]; C09K0005-04
                        [I,A]
                NCL
                       252/002.000; 062/007.000; 062/114.000; 252/008.000;
                       252/067.000; 252/069.000; 252/364.000; 516/008.000;
                       516/010.000; 516/198.000; 521/909.000; 521/910.000
                       A62D001/00C6; C08J009/14P; C09K003/30; C09K005/04B4;
                ECLA
                       C09K005/04B4B
US---5685915
                IPCI
                       B08B0003-12 [ICM,6]; B08B0003-08 [ICS,6]
                IPCR
                       A62D0001-00 [I,A]; A62D0001-00 [I,C*]; C08J0009-00
                        [I,C*]; C08J0009-14 [I,A]; C09K0003-30 [I,A];
                        C09K0003-30 [I,C*]; C09K0005-00 [I,C*]; C09K0005-04
                        [I,A]
                NCL
                       134/001.000; 134/034.000; 134/040.000; 134/042.000;
                       252/364.000; 510/109.000; 510/130.000; 510/161.000;
                       510/175.000; 510/202.000; 510/245.000; 510/285.000
                ECLA
                       A62D001/00C6; C08J009/14P; C09K003/30; C09K005/04B4;
                       C09K005/04B4B
US---5674451
                IPCI
                       A61L0002-18 [ICM,6]; A61L0002-20 [ICS,6]; B65B0055-10
                        [ICS,6]; B65B0055-04 [ICS,6,C*]; A01N0031-06 [ICS,6];
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A01N0031-00 [ICS, 6, C*]
                        A62D0001-00 [I,A]; A62D0001-00 [I,C*]; C08J0009-00
                 IPCR
                         [I,C*]; C08J0009-14 [I,A]; C09K0003-30 [I,A];
                        C09K0003-30 [I,C*]; C09K0005-00 [I,C*]; C09K0005-04
                        422/034.000; 252/372.000; 422/028.000; 422/037.000;
                 NCL
                        422/900.000
                        A62D001/00C6; C08J009/14P; C09K003/30; C09K005/04B4;
                 ECLA
                        C09K005/04B4B
 US---5562861
                 IPCI
                        C09K0003-30 [ICM, 6]; C23G0005-028 [ICS, 6]; C23G0005-00
                         [ICS,6,C*]; A62D0001-08 [ICS,6]; A62D0001-00 [ICS,6,C*]
                        A62D0001-00 [I,A]; A62D0001-00 [I,C*]; C08J0009-00
                 IPCR
                         [I,C*]; C08J0009-14 [I,A]; C09K0003-30 [I,A];
                        C09K0003-30 [I,C*]; C09K0005-00 [I,C*]; C09K0005-04
                         [I,A]
                 NCL
                        516/008.000; 252/002.000; 252/003.000; 252/008.000;
                        252/067.000; 252/364.000; 252/372.000; 516/010.000; 521/909.000; 521/910.000
                 ECLA
                        A62D001/00C6; C08J009/14P; C09K003/30; C09K005/04B4;
                        C09K005/04B4B
 US---5716549
                        C23G0005-028 [ICM,6]; C23G0005-00 [ICM,6,C*];
                 IPCI
                        A62D0001-00 [ICS,6]; C09K0005-00 [ICS,6]; C09K0003-30
                         [ICS, 6]
                 IPCR
                        A62D0001-00 [I,A]; A62D0001-00 [I,C*]; C08J0009-00
                         [I,C*]; C08J0009-14 [I,A]; C09K0003-30 [I,A];
                        C09K0003-30 [I,C*]; C09K0005-00 [I,C*]; C09K0005-04
                 NCL.
                        252/364.000; 252/002.000; 252/008.000; 252/067.000;
                        252/069.000; 252/372.000
                 ECLA
                        A62D001/00C6; C08J009/14P; C09K003/30; C09K005/04B4B;
                        C09K005/04B4
                        C09K0003-30 [ICM,6]; A62D0001-08 [ICS,6]; A62D0001-00
 US---5695688
                 IPCI
                         [ICS.6.C*]
                 IPCR
                        A62D0001-00 [I,A]; A62D0001-00 [I,C*]; C08J0009-00
                         [I,C*]; C08J0009-14 [I,A]; C09K0003-30 [I,A];
                        C09K0003-30 [I,C*]; C09K0005-00 [I,C*]; C09K0005-04
                         [I,A]
                 NCL
                        516/008.000; 252/008.000; 252/067.000; 252/372.000;
                        516/010.000
                 ECLA
                        A62D001/00C6; C08J009/14P; C09K003/30; C09K005/04B4B;
                        C09K005/04B4
AB
     The fluoroiodocarbons are effective, environmentally safe, nonflammable,
     low-toxicity refrigerants, solvents, foam blowing agents, propellants, and
     fire fighting agents. The agents are clean, elec. nonconductive, and have
     short atmospheric lifetimes, zero ozone-depletion potential, and low global
     warming potentials. The agents comprise ≥1 fluoroiodocarbon
     satisfying the general formula: CaHbBrcCldFeIfNgOh, where a is 1-8; b is
     0-2; c, d, g and h are each 0-1; e is 1-18; and f is 1-2, either neat or
     mixed with additives selected from the group consisting of alcs., esters,
     ethers, fluoroethers, hydrocarbons, hydrofluorocarbons, and
     perfluorocarbons.
ST
     fluoroiodocarbon blend CFC Halon replacement; refrigerant
     fluoroiodocarbon; fire extinguisher fluoroiodocarbon; solvent
     fluoroiodocarbon; foam blowing agent fluoroiodocarbon; propellant
     fluoroiodocarbon
ΙT
     Propellants
     Solvents
        (fluoroiodocarbon blends as CFC and Halon replacements)
IT
     Alcohols, uses
     Esters, uses
     Ethers, uses
     Hydrocarbons, uses
     Ketones, uses
     Ligroine
     Naphtha
     Perfluorocarbons
```

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Petroleum spirits
    Stoddard solvent
     Turpentine
    RL: TEM (Technical or engineered material use); USES (Uses)
        (fluoroiodocarbon blends as CFC and Halon replacements)
ΙT
    Blowing agents
        (foam; fluoroiodocarbon blends as CFC and Halon replacements)
IT
    Refrigeration
        (agents, fluoroiodocarbon blends as CFC and Halon replacements)
IT
        (extinguishers, fluoroiodocarbon blends as CFC and Halon replacements)
    Hydrocarbons, uses
IT
    RL: TEM (Technical or engineered material use); USES (Uses)
        (fluoro, iodo; fluoroiodocarbon blends as CFC and Halon replacements)
ΙT
    Ethers, uses
    RL: TEM (Technical or engineered material use); USES (Uses)
        (fluoroalkyl, fluoroiodocarbon blends as CFC and Halon replacements)
IT
    60-29-7, uses 64-17-5, Ethanol, uses 67-56-1, Methanol, uses
    67-63-0, 2-Propanol, uses 67-64-1, Acetone, uses 71-23-8, 1-Propanol,
          71-36-3, 1-Butanol, uses 71-41-0, 1-Pentanol, uses
                                                                 74-98-6.
     Propane, uses 75-10-5, Difluoromethane 75-19-4, Cyclopropane
    75-21-8, Oxirane, uses 75-28-5, Isobutane 75-37-6 75-46-7,
    Trifluoromethane 75-56-9, uses 75-65-0, 2-Methyl-2-propanol, uses
    75-73-0, Tetrafluoromethane 76-16-4, Hexafluoroethane
                                                             76-19-7,
    Octafluoropropane 78-78-4, 2-Methylbutane 78-83-1,
    2-Methyl-1-propanol, uses 78-92-2, 2-Butanol 78-93-3, Butanone, uses
    79-20-9, Methyl acetate 96-14-0, 3-Methylpentane 105-37-3, Ethyl
    propanoate 105-46-4, sec-Butyl acetate 105-54-4, Ethyl butanoate
    106-97-8, Butane, uses 107-08-4 108-08-7, 2,4-Dimethylpentane
    108-20-3, Diisopropyl ether 108-21-4, Isopropyl acetate 108-88-3,
                   109-60-4, n-Propyl acetate 109-66-0, Pentane, uses
    Toluene, uses
                   110-19-0, Isobutyl acetate 110-54-3, Hexane, uses
    109-99-9, uses
    111-43-3, Di-n-propyl ether 111-65-9, Octane, uses
                                                         111-84-2, Nonane
    115-10-6, Dimethyl ether 115-25-3, Octafluorocyclobutane
                                                               123-86-4,
    n-Butyl acetate 123-91-1, 1,4-Dioxane, uses 124-18-5, Decane
    138-86-3, Limonene 141-78-6, Acetic acid ethyl ester, uses 142-82-5,
    Heptane, uses 142-92-7, Hexyl acetate 142-96-1, Di-n-butyl ether
    287-23-0, Cyclobutane 335-58-0 354-33-6, Pentafluoroethane 354-41-6,
    1,1,2,2-Tetrafluoro-1-iodoethane 354-64-3, Pentafluoroiodoethane
    354-65-4, 1,1,2,2-Tetrafluoro-1,2-diiodoethane 355-25-9,
    Decafluorobutane 355-42-0, Tetradecafluorohexane 355-43-1, 1-Iodotridecafluorohexane 373-53-5, Fluoroiodomethane 377-44-6
    420-46-2, 1,1,1-Trifluoroethane 420-49-5, Chlorodifluoroiodomethane
    421-14-7, Methyl trifluoromethyl ether 422-91-3, 1,1,2,2,3,3-Hexafluoro-
    1,3-diiodopropane 423-39-2, Nonafluoro-1-iodobutane 425-82-1
    431-89-0, 1,1,1,2,3,3,3-Heptafluoropropane 463-82-1, 2,2-Dimethylpropane
    507-63-1, 1-Iodoheptadecafluorooctane 542-69-8 554-12-1, Methyl
    propanoate 565-59-3, 2,3-Dimethylpentane 589-34-4, 3-Methyl hexane
    623-42-7, Methyl butanoate 628-21-7 628-63-7, n-Pentyl acetate
    628-77-3
              629-09-4 638-79-9, 1-Iodoperfluoropentane 677-69-0,
    1,1,1,2,3,3,3-Heptafluoro-2-iodopropane 678-26-2, Dodecafluoropentane
    679-86-7, 1,1,2,2,3-Pentafluoropropane
                                             753-66-2,
    Bromodifluoroiodomethane
                               754-34-7, Heptafluoro-1-iodopropane
                                                                     811-97-2,
                              931-91-9, Hexafluorocyclopropane 1120-21-4,
    1,1,1,2-Tetrafluoroethane
    Undecane 1184-76-5, Difluorodiiodomethane 1330-16-1, Pinene
    1479-49-8
               1493-03-4, Difluoroiodomethane
                                               1561-52-0 1691-17-4,
    Bisdifluoromethyl ether 1885-48-9 2314-97-8, Trifluoroiodomethane
    2356-61-8 3822-68-2, Pentafluorodimethyl ether 5764-87-4 6032-29-7,
                 20705-05-9, 1,1,2-Trifluoro-1-iodoethane 22485-44-5
    2-Pentanol
      Iodopentafluorocyclopropane 53772-78-4
    RL: TEM (Technical or engineered material use); USES (Uses)
        (fluoroiodocarbon blends as CFC and Halon replacements)
ΙT
    22485-44-5, Iodopentafluorocyclopropane
    RL: TEM (Technical or engineered material use); USES (Uses)
        (fluoroiodocarbon blends as CFC and Halon replacements)
RN
    22485-44-5 HCAPLUS
```

CN Cyclopropane, pentafluoroiodo- (8CI, 9CI) (CA INDEX NAME)

AB

L42 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN 1994:77057 HCAPLUS 120:77057 DN Entered STN: 19 Feb 1994 ED TI A new approach to cyclopropene fatty acids involving 1,2-deiodination ΑIJ Baird, Mark S.; Grehan, Brendan CS Dep. Chem., Univ. Wales, Bangor/Gwynedd, LL57 2UW, UK SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1993), (14), 1547-8 CODEN: JCPRB4; ISSN: 0300-922X DT Journal English LA CC 26-3 (Biomolecules and Their Synthetic Analogs) CASREACT 120:77057 os GI

Me (CH<sub>2</sub>) 
$$_{7}$$
 (CH<sub>2</sub>)  $_{6}$ CHRCO<sub>2</sub>Me  $_{1}$ 

Me (CH<sub>2</sub>)  $_{7}$  (CH<sub>2</sub>)  $_{6}$ CHRCO<sub>2</sub>Me  $_{1}$ 

(Reactant or reagent)

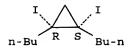
been prepared by deiodination of 1,2-diiodocyclopropanes II with butyllithium at low temperature ststerculate; hydroxysterculate; deiodination diiodocyclopropane; cyclopropane diiodo deiodination ΙT Deiodination (of diiodocyclopropanes with butyllithium) IT 152389-80-5 RL: RCT (Reactant); RACT (Reactant or reagent) (addition reaction with iodine) ΙT 152389-88-3 RL: RCT (Reactant); RACT (Reactant or reagent) (oxidation of) IT 152389-89-4P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and conversion to cyanohydrin) IT 34182-90-6P 34182-91-7P 152389-81-6P 152389-82-7P 152389-93-0P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and deiodination of) IT 152389-92-9P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

Me sterculate (I, R = H) and Me  $\alpha$ -hydroxysterculate (I, R = OH) have

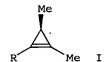
```
(preparation and hydrolysis of)
IT
     152389-84-9P 152389-91-8P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and iodination of)
IT
     152389-90-7P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and silylation of)
IT
     3220-60-8P, Methyl sterculate 152389-83-8P 152442-29-0P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
TT
     152389-85-0P 152517-74-3P
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation, deblocking, and oxidation of)
IT
    108176-04-1
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction with iodooctanol)
TΥ
     53596-83-1
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction with tribromocyclopropane)
IT
    152389-81-6P 152389-82-7P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and deiodination of)
RN
     152389-81-6 HCAPLUS
CN
     Cyclopropane, 1,2-dibutyl-1,2-diiodo-, trans- (9CI) (CA INDEX NAME)
Relative stereochemistry.
```

RN 152389-82-7 HCAPLUS CN Cyclopropane, 1,2-dibutyl-1,2-diiodo-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



```
L42 ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
AN
     1993:516836 HCAPLUS
DN
     119:116836
ED
     Entered STN: 18 Sep 1993
     (R)-1,3-Dimethylcyclopropene-one isomer of the smallest chiral hydrocarbon
ΤI
     Baird, Mark S.; Fitton, Helen L.; Clegg, William; McCamley, Andrew
ΑIJ
     Dep. Org. Chem., Univ. Coll. Wales, Bangor, LL57 2UW, UK
CS
SO
     Journal of the Chemical Society, Perkin Transactions 1: Organic and
     Bio-Organic Chemistry (1972-1999) (1993), (3), 321-6
     CODEN: JCPRB4; ISSN: 0300-922X
DT
     Journal
LA
     English
CC
     24-2 (Alicyclic Compounds)
     Section cross-reference(s): 75
OS
     CASREACT 119:116836
GΙ
```



```
1-Lithio-1,3-dimethylcyclopropene (I, R = Li) was obtained in optically
AB
     active form in five steps from tiglic acid and trapped with electrophiles
     to produce, a number of compds., including optically active
     1,3-dimethylcyclopropene I (R = H).
     cyclopropene dimethyl enantiomer; tiglic acid asym conversion
ST
     lithiodimethylcyclopropene
IT
     Crystal structure
     Molecular structure
        (of bromodimethyldiphenyloxatetracyclododecatriene)
     Asymmetric synthesis and induction
IT
        (of dimethylcyclopropene)
     5471-63-6, 1,3-Diphenylisobenzofuran
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (Diels-Alder reaction of, with in situ generated chiral
        dimethylcyclopropene)
IT
     3886-69-9, (+)-(R)-\alpha-Methylbenzylamine
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (acylation of, with chiral and racemic dibromodimethylpropanecarbonyl
        chlorides)
     80-59-1, Tiglic acid RL: RCT (Reactant); RACT (Reactant or reagent)
IT
        (esterification of, with isobutylene)
IT
     115-11-7, Isobutylene, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (esterification of, with tiglic acid)
TT
     86254-85-5P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and dibromocyclopropanation of)
IT
     148352-36-7P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and dimerization of)
TT
     148352-19-6P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant. or reagent)
        (preparation and hydrolysis of)
                                                 148352-22-1P
IT
     82190-83-8P
                  87619-34-9P
                                148352-20-9P
                                                                 148352-26-5P
                   148352-31-2P
                                   148352-32-3P 148352-33-4P
     148352-28-7P
                   148352-35-6P
                                    148410-15-5P
     148352-34-5P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
ΙT
     72957-66-5P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation, amidation with chiral methylbenzylamine, and attempted
        chlorodecarbonylation of)
IT
     148352-24-3P
                    148352-25-4P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation, bromination, and conversion into amide)
TΤ
     148352-21-0P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation, debromination and crystal and mol. structure of)
IT
     99236-07-4P
                   178425-63-3P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation, generation of chiral dimethylcyclopropene and Diels-Alder
        reaction of, with diphenylisobenzofuran)
```

148352-23-2P TT RL: SPN (Synthetic preparation); PREP (Preparation) (preparation, resolution, conversion into acid chloride, and halogenation of) IT 15922-78-8, N-Hydroxy-2-pyridinethione sodium salt RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with dimethyldibromocyclopropanecarbonyl chloride) TT 148352-33-4P 148352-34-5P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of) RN 148352-33-4 HCAPLUS CN Cyclopropane, 1,1-dibromo-2-iodo-2,3-dimethyl-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 148352-34-5 HCAPLUS CN Cyclopropane, 1,1-dibromo-2-iodo-2,3-dimethyl-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

L42 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN 1993:408389 HCAPLUS AΝ DN 119:8389 ED Entered STN: 10 Jul 1993 Synthesis and chemistry of some tricyclic cyclopropenes. 3.TI Tricyclo[3.2.1.02,4]oct-2(4)-ene. [Erratum to document cited in CA117(19):191377v] Chenier, Philip J.; Bauer, Michael J.; Hodge, Christina L. AII Dep. Chem., Univ. Wisconsin, Eau Claire, WI, 54702-4004, USA CS SO Journal of Organic Chemistry (1993), 58(11), 3222 CODEN: JOCEAH; ISSN: 0022-3263 DT Journal LΑ English CC 24-8 (Alicyclic Compounds) Section cross-reference(s): 22 AB An error in the text has been corrected The error was not reflected in the abstract or the index entries. sterratum cyclopropanation chloromethylbicycloheptanedicarboxylate; cyclopropanation chloromethylbicycloheptanedicarboxylate erratum; bicycloheptanedicarboxylate chloromethyl cyclopropanation erratum; dehalogenation iodotricyclooctane erratum; bromotricyclooctane dehalogenation erratum TТ Regiochemistry (of dehalogenation of dihalotricyclo[3.2.1.02,4]octane (Erratum)) IT Ring closure and formation (cyclopropanation, of (chloromethyl)bicycloheptanedicarboxylate

```
(Erratum))
IT
     Debromination
        (regioselective, of dibromotricyclo[3.2.1.02,4]octane (Erratum))
IT
     Dechlorination
        (regioselective, of dichlorotricyclo[3.2.1.02,4]octane (Erratum))
IT
     Dehalogenation
        (regioselective, of dihalotricyclo[3.2.1.02,4]octane (Erratum))
IT
     542-92-7, 1,3-Cyclopentadiene, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (Diels-Alder reaction of, with (chloromethyl) maleic anhydride
        (Erratum))
IT
     41702-49-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (Diels-Alder reaction of, with cyclopentadiene (Erratum))
     7726-95-6, Bromine, reactions
TΤ
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (debromination, regioselective, of dibromotricyclo[3.2.1.02,4] octane
        (Erratum))
     7782-50-5, Chlorine, reactions
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (dechlorination, regioselective, of dichlorotricyclo[3.2.1.02,4] octane
        (Erratum))
ΙT
     122145-03-3, Tricyclo [3.2.2.02,4] non-2(4)-ene
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (decomposition of (Erratum))
IT
     143668-20-6P, Tricyclo[3.2.1.02,4]oct-2(4)-ene
     RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
        (formation and decomposition of (Erratum))
TT
     143668-31-9P
     RL: FORM (Formation, nonpreparative); PREP (Preparation)
        (formation of, in debromination of dibromotricyclo[3.2.1.02,4] octane
        (Erratum))
     143668-28-4P
                                   143668-30-8P
IT
                    143668-29-5P
     RL: FORM (Formation, nonpreparative); PREP (Preparation)
        (formation of, in debromination of dibromotricyclo[3.2.1.02,4] octane
        with tert-butyllithium (Erratum))
ΙT
     143729-90-2P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and cyclopropanation of (Erratum))
TΤ
     143668-26-2P 143668-27-3P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and dehalogenation of (Erratum))
     143668-25-1P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and halogenation of (Erratum))
IT
     143668-23-9P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and isomerization of (Erratum))
IT
     143668-21-7P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and reduction of (Erratum))
IT
     143668-22-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and ring opening/esterification of (Erratum))
IT
     143668-24-0P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and saponification of (Erratum))
     5471-63-6P
IT
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of (Erratum))
```

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IT
      143680-78-8P
      RL: SPN (Synthetic preparation); PREP (Preparation)
         (preparation of, by decomposition of Tricyclo[3.2.1.02,4]octene (Erratum))
. IT
      1159-86-0P
      RL: SPN (Synthetic preparation); PREP (Preparation)
         (preparation of, by decomposition of tricyclo[3.2.1.02,4]octene (Erratum))
TT
      143668-27-3P
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (preparation and dehalogenation of (Erratum))
      143668-27-3 HCAPLUS
RN
      Tricyclo[3.2.1.02,4] octane, 2,4-diiodo-, (1\alpha,2\beta,4\beta,5.alpha
      .)- (9CI) (CA INDEX NAME)
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L42 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
AN
     1992:591377 HCAPLUS
DN
     117:191377
ED
     Entered STN: 15 Nov 1992
     Synthesis and chemistry of some tricyclic cyclopropenes. 3.
TI
     Tricyclo[3.2.1.02,4]oct-2(4)-ene
     Chenier, Philip J.; Bauer, Michael J.; Hodge, Christina L.
ΑU
CS
    Dep. Chem., Univ. Wisconsin, Eau Claire, WI, 54702-4004, USA
so
     Journal of Organic Chemistry (1992), 57(22), 5959-62
     CODEN: JOCEAH; ISSN: 0022-3263
DT
     Journal
LA
     English
     24-8 (Alicyclic Compounds)
CC
     Section cross-reference(s): 22
os
     CASREACT 117:191377
GI
```



AB The title compound cyclopropene (I) was synthesized in situ by dehalogenation of a dibromide and diiodide precursor with tert-butyllithium in THF at -78°C. The dihalides were formed in six steps starting with cyclopentadiene and (chloromethyl)maleic anhydride. In the presence of diphenylisobenzofuran (DPIBF) I forms a Diels-Alder adduct. Cyclopropene I and a previously synthesized cyclopropene (II) were decomposed under these same conditions, only without DPIBF present, to give complex mixts. of products, some of which were characterized as tert-Bu adducts and dimers via the ene reaction of the cyclopropenes.

ST cyclopropanation chloromethylbicycloheptanedicarboxylate; bicycloheptanedicarboxylate chloromethyl cyclopropanation; dehalogenation iodotricyclooctane; bromotricyclooctane dehalogenation

IT Regiochemistry

(of dehalogenation of dihalotricyclo[3.2.1.02,4]octane)

IT Ring closure and formation

```
(cyclopropanation, of (chloromethyl)bicycloheptanedicarboxylate)
TT
     Debromination
        (regioselective, of dibromotricyclo[3.2.1.02,4]octane)
IT
     Dechlorination
        (regioselective, of dichlorotricyclo[3.2.1.02,4]octane)
     Dehalogenation
        (regioselective, of dihalotricyclo[3.2.1.02,4]octane)
IT
     542-92-7, Cyclopentadiene, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (Diels-Alder reaction of, with (chloromethyl) maleic anhydride)
IT
     41702-49-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (Diels-Alder reaction of, with cyclopentadiene)
IT
     7726-95-6
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (debromination, regioselective, of dibromotricyclo[3.2.1.02,4]octane)
     7782-50-5
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (dechlorination, regioselective, of dichlorotricyclo[3.2.1.02,4]octane)
IT
     122145-03-3, Tricyclo[3.2.2.02,4]non-2(4)-ene
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (decomposition of)
IT
     143668-20-6P, Tricyclo[3.2.1.02,4]oct-2(4)-ene
     RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
        (formation and decomposition of)
TT
     143668-31-9P
     RL: FORM (Formation, nonpreparative); PREP (Preparation)
        (formation of, in debromination of dibromotricyclo[3.2.1.02,4]octane)
IT
     143668-28-4P
                    143668-29-5P
                                   143668-30-8P
     RL: FORM (Formation, nonpreparative); PREP (Preparation)
        (formation of, in debromination of dibromotricyclo[3.2.1.02,4] octane
        with tert-butyllithium)
IT
     143729-90-2P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and cyclopropanation of)
     143668-26-2P 143668-27-3P
IT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and dehalogenation of)
IT
     143668-25-1P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and halogenation of)
IT
     143668-23-9P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and isomerization of)
     143668-21-7P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and reduction of)
IT
     143668-22-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and ring opening/esterification of)
IT
     143668-24-0P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and saponification of)
TT
     5471-63-6P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
ΙT
     143680-78-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of, by decomposition of Tricyclo[3.2.1.02,4]octene)
IT
     1159-86-0P
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L42 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
AN
     1992:20705 HCAPLUS
DN
     116:20705
     Entered STN: 24 Jan 1992
ED
TI
     1,2-Bridged cyclopropenes
ΑU
     Wiberg, Kenneth B.; Artis, Dean R.; Bonneville, G.
     Dep. Chem., Yale Univ., New Haven, CT, 06511, USA
CS
so
     Journal of the American Chemical Society (1991), 113(21),
     7969-79
     CODEN: JACSAT; ISSN: 0002-7863
DT
     Journal
LА
     English
CC
     24-7 (Alicyclic Compounds)
     Section cross-reference(s): 22
GT
     For diagram(s), see printed CA Issue.
AB
     The dehalogenations of 1,5-dihalobicyclo[3.1.0] hexanes I (R = Br, iodo)
     and 1,6-dihalobicyclo[4.1.0] heptanes II (R = Br, iodo) have been studied
     in solution and in the gas phase. The solution reactions led to the formation
     of bicyclo[3.1.0] hex-1(5) ene (III) and bicyclo[4.1.0] hept-1(6) - ene (IV)
     resp., but this was followed by rapid ene reactions forming dimers, which
     then coupled to form tetramers. The cyclopropenes could be trapped as
     Diels-Alder adducts. In the gas phase, by use of either potassium atoms
     or solid methyllithium, the products of thermal ring opening,
     methylenecyclopentene and methylenecyclohexene, were formed. A set of
     theor. calcns. was carried out dealing with the strain energies, inversion
     barriers, bond properties, and atom properties of bicyclo[1.1.0]but-1(3)-
     ene (V), bicyclo[2.1.0]pent-1(4)-ene (VI), and the cyclopropenes from the
     exptl. study. Whereas bicyclohexene and bicycloheptene appear to be
     fairly normal compds. except for their high strain energies,
     bicyclopentene may be a transition state for the carbon scrambling of
     methylenecyclobutylidene, and bicyclobutene has an unusual structure and
     charge-d. distribution.
ST
     bridged cyclopropene prepn ene theor property
IT
     Molecular orbital
        (of bicyclobutene, bicyclopentene, and cyclopropenes)
IT
     Bond angle
     Heat of formation
        (of bridged and unbridged cyclopropenes)
IT
     Dehalogenation
        (of dihalobicycloalkanes, generation of bridged cyclopropenes by)
ΙT
     Potential energy and function
        (strain, of bridged and unbridged cyclopropenes)
IT
     Energy level
        (vibrational, of bridged and unbridged cyclopropenes)
ΙT
     41702-49-2
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RL: RCT (Reactant); RACT (Reactant or reagent)
        (Diels-Alder reaction of, with in situ generated butadiene)
     5471-63-6, 1,3-Diphenylisobenzofuran
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (Diels-Alder reaction of, with in situ generated cyclopropenes)
ΙT
                  74-82-8P, Methane, preparation
                                                   74-84-0P, Ethane,
     27538-13-2
                                                   106-97-8P, Butane,
     preparation
                   74-98-6P, Propane, preparation
     preparation
     RL: PRP (Properties)
        (MO energies of)
IT
     2781-85-3P, Cyclopropene 58208-49-4P, B: 66235-52-7P, Bicyclo[2.1.0]pent-1(4)-ene
                                 58208-49-4P, Bicyclo[1.1.0]but-1(3)-ene
                                                66235-53-8P,
     Bicyclo[3.1.0]hex-1(5)-ene
                                 66235-54-9P, Bicyclo[4.1.0]hept-1(6)-ene
     RL: PREP (Preparation)
        (MO energies, heat of formation, strain energies, vibrational frequency
        and bond angles of)
TT
     75-19-4, Cyclopropane
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (bond angles of)
IT
     699-49-0
                699-50-3
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (decarboxylation-bromination of)
IT
     286-08-8P, Norcarane 1888-90-0P, 3-Methylenecyclohexene
     RL: FORM (Formation, nonpreparative); PREP (Preparation)
        (formation of, in gas-phase reaction of dihalobicycloheptane with
        potassium)
TT
     285-58-5P, Bicyclo[3.1.0]hexane
                                       930-26-7P, 3-Methylenecyclopentene
     RL: FORM (Formation, nonpreparative); PREP (Preparation)
        (formation of, in gas-phase reaction of dihalobicyclohexanes with
        potassium)
                    137648-82-9P
                                   137648-83-0P
IT
     137648-81-8P
                                                   137764-37-5P
     RL: FORM (Formation, nonpreparative); PREP (Preparation)
        (formation of, in reaction of diiodobicyclohexane with methyllithium)
     77-79-2P, 3-Sulfolene
IT
     RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
        (generation of butadiene and Diels-Alder reaction of, with
        (chloromethyl) maleic anhydride)
IT
     85739-39-5P
                   85739-40-8P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and Me esterification of)
TТ
     2958-66-9P, Bicyclo[3.1.0] hexane-1,5-dicarboxylic acid
                                                               85739-45-3P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and decarboxylation-halogenation of)
TТ
     137648-72-7P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and hydrogenation of)
TТ
     85750-78-3P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and intramol. cyclocondensation of)
ΙT
     85739-44-2P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and methanolysis-Me esterification of)
IT
     137648-70-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and reaction of, with methyllithium)
IT
     3037-78-3P
                  103478-30-4P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and saponification of)
IT
     85739-32-8P
                 85739-33-9P
                                 85739-36-2P
                                                85739-37-3P
                                                               85739-38-4P
                   135663-39-7P
                                  135663-40-0P
                                                  135695-40-8P
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137648-75-0P
                                                                  137648-78-3P
     137648-74-9P
                                   137648-76-1P
                                                  137648-77-2P
     137648-79-4P
                    137648-80-7P
                                   137764-35-3P
                                                 137764-36-4P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
IT
     14309-32-1P, 1,2-Dimethylcyclopropene
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation, MO energies, heat of formation, strained energy, and
        vibrational frequency of)
IT
     85739-31-7P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation, reductive debromination-generation of alkene and Diels-Alder
        reaction of, with diphenylisobenzofuran)
IT
     85739-35-1P 137648-71-6P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation, reductive debromination-generation of alkene and reactions of)
IT
     85739-34-0P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation, reductive debromination-generation of alkene, and reactions
        of)
IT
     62638-06-6
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (sequential lithiation, amination, and intramol. cyclocondensation of)
TT
     137648-70-5P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and reaction of, with methyllithium)
RN
     137648-70-5 HCAPLUS
    Bicyclo[3.1.0] hexane, 1,5-diiodo- (9CI) (CA INDEX NAME)
CN
IT
     137648-71-6P
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation, reductive debromination-generation of alkene and reactions of)
RN
    137648-71-6 HCAPLUS
CN
    Bicyclo[4.1.0] heptane, 1,6-diiodo- (9CI) (CA INDEX NAME)
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L42 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ΑN
     1986:625635 HCAPLUS
DN
     105:225635
ED
     Entered STN: 26 Dec 1986
TI
     Vibrational spectra and structure of halogen-substituted cyclopropanes.
     III. Cis- and trans-1,2-diiodocyclopropane
     Schrumpf, G.
ΑU
CS
     Inst. Org. Chem., Univ. Goettingen, Goettingen, D-3400, Fed. Rep. Ger.
SO
     Journal of Raman Spectroscopy (1986), 17(2), 183-7
     CODEN: JRSPAF; ISSN: 0377-0486
DT
     Journal
LΑ
     English
```

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CC
     22-9 (Physical Organic Chemistry)
     The IR spectra of liquid cis- and trans-1,2-diiodocyclopropane were measured
AB
     from 4000 to 200 cm-1. Raman spectra between 4000 and 50 cm-1 of the two
     compds. as liqs. and of the solid cis isomer were also obtained. All of
     the 21 normal vibrations of the two mols. were convincingly assigned on
     the basis of Raman depolarization ratios and group frequency correlations.
     Comparisons are made with the normal modes of related compds. There is
     excellent agreement with those assignments previously proposed for the two
     isomers of 1,2-dibromocyclopropane, cis-1,2-dichloropropane and related
     modes of iodocyclopropane.
ST
     IR diiodocyclopropane Raman; normal vibration diiodocyclopropane
IT
     Infrared spectra
    Raman spectra
        (of diiodocyclopropane isomers)
IT
    Molecular vibration
        (of diiodocyclopropanes, normal coordinate anal. of)
     105285-96-9 105285-97-0
    RL: PROC (Process)
        (vibrational anal. of)
IT
     105285-96-9 105285-97-0
    RL: PROC (Process)
        (vibrational anal. of)
RN
     105285-96-9 HCAPLUS
    Cyclopropane, 1,2-diiodo-, (1R,2S)-rel- (9CI) (CA INDEX NAME)
CN
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Relative stereochemistry.



RN 105285-97-0 HCAPLUS CN Cyclopropane, 1,2-diiodo-, (1R,2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



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L42 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
    1986:497027 HCAPLUS
AN
     105:97027
DN
ED
     Entered STN: 19 Sep 1986
     Formation of diiodocyclopropanes from electron-poor alkenes
TΤ
     Baird, Mark S.; Gerrard, Michele E.
ΑU
    Dep. Org. Chem., Univ. Newcastle upon Tyne, Newcastle upon Tyne, NE1 7RU,
CS
so
     Journal of Chemical Research, Synopses (1986), (3), 114-15
     CODEN: JRPSDC; ISSN: 0308-2342
DT
     Journal
LΑ
     English
CC
     24-2 (Alicyclic Compounds)
     Section cross-reference(s): 23
os
     CASREACT 105:97027
GΤ
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AB
     The base-induced reactions of CHI3 with electron-deficient alkenes were
     examined under phase-transfer-catalyzed conditions. Thus, treatment of
     CH2:CMeR (R = CN, CO2Me) with CHI3 in H2O-CH2Cl2 in the presence of
     PhCH2N+Et3.Cl- for 12 and 3 h at 20°, resp., gave the corresponding
     diiodocyclopropanes I (R = CN, CO2Me, R1 = Me) in 58 and 42% yield, resp.
     Similar treatment of CH2:CHR (R = CN, CO2Et) for 1 h gave the
     corresponding I (R = CN, CO2Et, R1 = H) in 48 and 57% yield, resp.
ST
     iodocyclopropane; cyclopropane diiodo; iodoform reaction electron
     deficient alkene
IT
     Ring closure and formation
        (of iodoform with electron-deficient alkenes, diiodocyclopropanes by
        phase transfer-catalyzed)
IT
     513-92-8P
     RL: FORM (Formation, nonpreparative); PREP (Preparation)
        (formation of, in reaction of iodoform with electron-deficient alkenes)
IT
     103867-98-7
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (ozonolysis and oxidation of)
IT
     103867-92-1
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (ozonolysis of)
TT
     84060-85-5P
                   103867-93-2P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and hydrolysis of)
IT
     103867-91-0P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and methylation of)
IT
     103867-94-3P
                   103867-95-4P 103867-96-5P
                                                 103867-97-6P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
IT
     75-47-8
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (ring closure reaction of, with electron-deficient alkenes, phase
        transfer-catalyzed)
     80-62-6 107-13-1, reactions 126-98-7 140 RL: RCT (Reactant); RACT (Reactant or reagent)
IT
                                                 140-88-5
        (ring closure reaction of, with iodoform, phase transfer-catalyzed)
IT
     103867-96-5P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
RN
     103867-96-5 HCAPLUS
     Cyclopropanecarbonitrile, 1,2,2-triiodo- (9CI) (CA INDEX NAME)
CN
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L42 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN AN 1979:136877 HCAPLUS DN 90:136877 ED Entered STN: 12 May 1984

```
ΤI
     Signs of two- and three-bond coupling constants in
     pentafluorocyclopropanes and their possible origins
ΑU
     Barlow, M. G.; Fields, R.; Temme, F. P.
CS
     Dep. Chem., Univ. Manchester Inst. Sci. Technol., Manchester, UK
so
     Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy (
     1978), 34A(6), 613-16
CODEN: SAMCAS; ISSN: 0370-8322
DT
     Journal
LΑ
     English
CC
     22-2 (Physical Organic Chemistry)
AB
     The nuclear spin-coupling consts. of 19F over 2 and 3 bonds in
     pentafluorocyclopropane and its Cl, Br and iodo derivs. were determined by a
     double-resonance technique. The signs and magnitudes of these consts. are
     discussed in terms of the theor. Fermi-contact, orbital and spin-dipolar
     contributions. Semiempirical correlation of the 2- and 3-bond coupling
     consts. with the elec.-field term provides some rationalization of their
     signs within the CF2CF2 fragment, where the different types of
     elec.-field-term dependence suggest that while the cis 3-bond coupling is
     dominated by the orbital term, the variation in trans 3-bond coupling is
     attributable to changes in the spin-dipolar term. The orbital term also
     appears to dominate the 3-bond coupling within the CF2-CF fragment, being
     the most substituent-sensitive, and possibly provides a major contribution
     to the coupling mechanism.
ST
     fluorine long range coupling; spin coupling pentafluorocyclopropane;
     fluorocyclopropane long range coupling; chloropentafluorocyclopropane spin
     coupling; bromopentafluorocyclopropane spin coupling;
     iodopentafluorocyclopropane spin coupling
IT
     Spin, nuclear coupling
        (long-range, of fluorine, in pentafluorocyclopropane and its
        halo-derivs.)
IT
     695-52-3
               872-58-2
                           22485-43-4 22485-44-5
     RL: PRP (Properties)
        (nuclear spin-spin coupling of fluorine-19 in, long-range)
ΙT
     7782-41-4, properties
     RL: PRP (Properties)
        (nuclear spin-spin coupling of, in pentafluorocyclopropane and its
        halo-derivs., long-range)
IT
     22485-44-5
     RL: PRP (Properties)
        (nuclear spin-spin coupling of fluorine-19 in, long-range)
RN
     22485-44-5 HCAPLUS
CN
     Cyclopropane, pentafluoroiodo- (8CI, 9CI) (CA INDEX NAME)
```



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L42 ANSWER 14 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
AN
     1974:3136 HCAPLUS
DN
     80:3136
ED
     Entered STN: 12 May 1984
     Cyclopropane chemistry. III.
                                    Thermal decomposition of
     halopoly(fluoro)cyclopropanes
     Birchall, J. Michael; Fields, Roy; Haszeldine, Robert N.; Kendall, Norman
AU
CS
     Dep. Chem., Univ. Manch. Inst. Sci. Technol., Manchester, UK
SO
     Journal of the Chemical Society, Perkin Transactions 1: Organic and
     Bio-Organic Chemistry (1972-1999) (1973), (16), 1773-9
     CODEN: JCPRB4; ISSN: 0300-922X
DT
     Journal
     English
LA
```

```
CC
     24-2 (Alicyclic Compounds)
GΙ
     For diagram(s), see printed CA Issue.
AB
     Pyrolysis of the cyclopropanes (I, R = H and CF3) and 1,1-
     dichlorotrifluoro(trifluoromethyl)cyclopropane proceeded only by
     elimination of F2C:. 1,1,2-Trifluoro-2-(trifluoromethyl)cyclopropane
     underwent exclusive rearrangement to F3CCF:CHCHF2. I (R = Br, iodo) and
     1,2-dichlorotetrafluoro- and 1-chloro-1,2,2,3-tetrafluorocyclopropane
    showed both types of behavior.
ST
     thermal decompn fluorocyclopropane; cyclopropane fluoro thermal decompn
IT
     Carbenes (methylene derivatives)
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (insertion reactions of)
     311-81-9 359-37-5 381-71-5
                                      598-73-2
TT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (insertion reaction with difluorocarbene)
IT
     661-45-0
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (insertion reaction with haloethenes)
                                                49852-51-9P
TT
     49776-46-7P
                 49852-49-5P
                                49852-50-8P
                                                              49852-57-5P
     50678-66-5P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
ΙT
     1840-40-0
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction with hexafluoropropene)
IT
     116-15-4
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction with trifluoro(trichloromethyl)silane)
IT
     379-16-8
               380-51-8
                          872-58-2
                                      22430-74-6
                                                   22430-75-7
                                                                 22430-76-8
     22430-77-9 22485-43-4 22485-44-5
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (thermal decomposition of, mechanism of)
     74-85-1, reactions RL: RCT (Reactant); RACT (Reactant or reagent)
IT
        (with hexafluoropropene)
IT
     22485-44-5
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (thermal decomposition of, mechanism of)
     22485-44-5 HCAPLUS
RN
     Cyclopropane, pentafluoroiodo- (8CI, 9CI) (CA INDEX NAME)
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L42 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
AN
     1969:46649 HCAPLUS
     70:46649
DN
ED
     Entered STN: 12 May 1984
ΤĮ
     Fluorine-fluorine coupling constants in halopentafluorocyclopropanes:
     vicinal couplings of either sign
     Barlow, M. G.; Fields, Roy; Temme, F. P. Univ. Manchester Inst. Sci. Technol., Manchester, UK
AU
CS
     Chemical Communications (London) (1968), (24), 1671-2
SO
     CODEN: CCOMA8; ISSN: 0009-241X
DT
     Journal
LΑ
     English
CC
     22 (Physical Organic Chemistry)
AB
     1 - (X - Substituted)-pentafluorocyclopro-panes give rise to AA'BB'X
     spectra in which the AA'BB' portion arising from the geminal F nuclei is
     dominated by the geminal coupling JAB, which is more than an order of
```

magnitude larger than the other couplings. It is assumed to be pos. All the vicinal F-F couplings are substantial and depend on the nature and relative position of X. JAA' changes sign when X changes from Br to I. The cis couplings show similar trends to larger pos. values as X becomes more electroneg. Similarly the neg. trans coupling JAX tends to larger absolute values with increased electronegativity of X, while JAB' tends to increase as the electronegativity of X decreases. fluoro cyclopropanes NMR; cyclopropanes fluoro NMR; NMR fluoro

ST cyclopropanes

IT Spin, nuclear

(-spin coupling, of fluorine atoms in halopentafluorocyclopropanes)

IT 931-91-9

RL: PRP (Properties)

(nuclear magnetic resonance of fluorine in)

22485-43-4 22485-44-5 IT 695-52-3

RL: PRP (Properties)

(nuclear spin-spin coupling between fluorine atoms in)

7782-41-4, properties

RL: RCT (Reactant); RACT (Reactant or reagent)

(nuclear spin-spin coupling of, in halopentafluorocyclopropanes)

IT 22485-44-5

RL: PRP (Properties)

(nuclear spin-spin coupling between fluorine atoms in)

RN 22485-44-5 HCAPLUS

Cyclopropane, pentafluoroiodo- (8CI, 9CI) (CA INDEX NAME) CN

L42 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

1968:25302 HCAPLUS AN

DN 68:25302

ED Entered STN: 12 May 1984

ТΤ Fluorine-19 coupling constants and chemical shifts in trifluorocyclopropanes

ΑU Williamson, Kenneth Lee; Braman, Beverly A.

CS Mount Holyoke Coll., South Hadley, MA, USA

SO Journal of the American Chemical Society (1967), 89(24), 6183-6

CODEN: JACSAT; ISSN: 0002-7863

DTJournal

LΑ English

CC 73 (Spectra and Other Optical Properties)

The chloro, bromo, and iodo derivs. of 1,1-dichloro-2,2,3-AB trifluorocyclopropane have been synthesized and the 19F chemical shifts and coupling consts. have been determined The vicinal and geminal couplings have been shown, by frequency sweep double resonance, to be of opposite sign. Relative chemical shifts for the geminal F atoms have been calculated A linear correlation between the coupling consts. and the substituent electronegativity has been noted in which Jtrans is much more sensitive to changes in electroneg. substituents than is Jcis. No obvious correlation between vicinal JFF and dihedral angle is found. 32 references.

FLUOROCYCLOPROPANES F NMR; CYCLOPROPANES FLUORINATED F NMR ST

IT Spin, nuclear

(-spin coupling, of fluorine in trifluorocyclopropane derivs.)

IT Substituents

> (nuclear spin-spin coupling of fluorine in relation to electronegativity of, in trifluorocyclopropane derivs.)

IT Electronegativity

(nuclear spin-spin coupling of fluorine in relation to, of substituents in trifluorocyclopropane derivs.)

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http://www.cas.org/ONLINE/UG/regprops.html

=> d ide can 143 tot

L43 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN

RN 19533-52-9 REGISTRY

ED Entered STN: 16 Nov 1984

CN Cyclopropane, 1,2-diiodo- (6CI, 8CI) (CA INDEX NAME)

FS 3D CONCORD

MF C3 H4 I2

LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, TOXCENTER (\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 55:37793

REFERENCE 2: 24:16890

=> b uspatall

FILE 'USPATFULL' ENTERED AT 14:02:51 ON 18 JUL 2006 CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 14:02:51 ON 18 JUL 2006 CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs fhitstr hitrn 144 1

IT Nuclear magnetic resonance (of fluorine, in trifluorocyclopropane derivs.) IT 17371-07-2 17371-08-3 17371-09-4 RL: PRP (Properties) (nuclear magnetic resonance of fluorine in, nuclear spin-spin coupling in) TT 7782-41-4, properties RL: RCT (Reactant); RACT (Reactant or reagent) (nuclear spin-spin coupling of, in trifluorocyclopropane derivs.) IT 17371-09-4 RL: PRP (Properties) (nuclear magnetic resonance of fluorine in, nuclear spin-spin coupling in) RN 17371-09-4 HCAPLUS CN Cyclopropane, 1,1-dichloro-2-iodo-2,3,3-trifluoro- (8CI) (CA INDEX NAME)

L42 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

AN DN

ED

1961:37793 HCAPLUS

Entered STN: 22 Apr 2001

DN 55:37793 OREF 55:7310d-i,7311a

Cyclopropene. V. Some reactions of cyclopropene ΤI Wiberg, Kenneth B.; Bartley, William J. AU CS Univ. of Washington, Seattle SO Journal of the American Chemical Society (1960), 82, 6375-80 CODEN: JACSAT; ISSN: 0002-7863 DT Journal Unavailable LΑ CC 10D (Organic Chemistry: Alicyclic Compounds) OS CASREACT 55:37793 cf. CA 52, 16241c. A number of reactions of cyclopropene (I) was investigated. The heat of formation of I, estimated on the results of this study, was 47.7 kcal./mole. Cyclopropanecarboxylic acid (43 g.) and then 36 g. NaN3 added during 1 hr. with stirring in small portions to 500 cc. CHCl3 and 100 cc. concentrated H2SO4, stirred 5-8 hrs. at 50-5°, and poured onto ice, the aqueous layer basified with concentrated aqueous KOH and steam distilled into a small excess of 6N HCl, and the acid solution evaporated in vacuo gave 28-35.5 g. cyclopropylamine-HCl which was converted in the usual manner to I. When the cyclopropyltrimethylammonium hydroxide was equilibrated with D2O and then pyrolyzed, the resulting I contained 40% I-d2, 40% I-d1, and 20% I-d0. I and He (1:5) slowly swept with He during 10-30 min. through a tube packed with glass helices at 325° gave only a small amount of MeC.tplbond.CH; at 425° the product contained up to 80% MeC.tplbond.CH; the conversion depended on the contact time. I and N slowly passed into 3.5 g. cyclopentadiene in 50 cc. CH2Cl2 at 0° and evaporated, and the residue purified by vapor chromatography gave 5.4 g. 1:1 adduct, m. 30-2°. I and N passed at room temperature into 3.2 g. (CH2:CH)2 at room temperature, kept 5 hrs., and evaporated, and the residue purified by vapor chromatography yielded 2.0 g. 1:1 adduct, b. 106-9°, n25D 1.4749. I and N passed at 0° into Br-CCl4 and distilled gave 57% dibromide (II) of I, b27 40-50°, n25D 1.5301. I added at room temperature to iodine-CCl4 gave 64% diiodide of I, bl 45-7°, n25D 1.6738. The Grignard reagent from 5 g. II, 1.22 g. Mg, and 20 cc. dry Et20 treated dropwise with 2 cc. D20 gave 10% cyclopropane (III) containing 86% III-d2, 8% III-d1, and 6% III-d0. The Grignard reagent from 11 g. II and 2.9 g. Mg in 40 cc. Et20 treated with stirring with dry CO2 and worked up, and the resulting acid refluxed 3 hrs. with 50 cc. absolute

```
EtOH and a few drops concentrated HCl yielded di-Et cis-cyclopropane-1,2-
     dicarboxylate. I passed into 30% aqueous AgNO3 or into ammoniacal AgNO3 gave
     a black precipitate of an argentic complex which was soluble in 30% HClO4. Ph2CN2
     from 2.5 g. Ph2C:NNH2 in 50 cc. CH2Cl2 and 0.5 g. Cu powder treated at
   liquid N temperature with about 1 g. I, kept 1.5 hrs. at -78° with
     occasional shaking, warmed to room temperature, and evaporated gave 1 g. 1:1 adduct,
     yellow-tan needles, m. 119-21°, which oxidized gave Bz2CO.
     N2CHCO2Et (3.0 g.) in 10 cc. CH2Cl2 treated at liquid N temperature with 1.5 cc.
     I gave 1.5 g. 1:1 adduct, b0.4 90-100°, and some higher boiling
     material. Cyclopropyldimethylamine (IV) (8.5 g.) added with stirring
     below 10° to 25 cc. 30% H2O2 in 50 cc. H2O, stirred overnight at
     room temperature, treated with a small amount of platinized asbestos, concentrated to
     about 15 cc. in vacuo, and pyrolyzed at 320°, the product swept
     with N into 10% HCl, and the aqueous solution basified with KOH gave 2.0 g. IV;
     no I was found.
IT
     Diels-Alder reaction
     Halogenation
     Heat of formation
     Isomerization
        (of cyclopropene)
IT
     Silver, compound with cyclopropene
TT
     2781-85-3, Cyclopropene
        (and derivs.)
     74-99-7, Propyne
IT
        (formation of, from cyclopropene)
     657-23-8, Tricyclo[3.2.1.02,4]oct-6-ene
                                                710-43-0, 1,2-
     Cyclopropanedicarboxylic acid, cis-, diethyl ester 16554-83-9,
     3-Norcarene
                  16837-83-5, Cyclopropane, 1,2-dibromo-, trans- 16837-85-7,
     Cyclopropene-d2 19533-52-9, Cyclopropane, 1,2-diiodo-76936-98-6, Cyclopropane-d 98334-65-7, 3-Pyridazinecarboxylic acid,
     3,4-dihydro-(?), ethyl ester 117882-25-4, Cyclopropene-d
                                                                  122211-66-9,
     Cyclopropane-1,2-d2, cis- 132981-80-7, Pyridazine, 3,4-dihydro-3,3-
     diphenyl-(?)
        (preparation of)
ΙT
     623-73-4, Acetic acid, diazo-, ethyl ester 883-40-9, Methane,
     diazodiphenyl-
        (reaction with cyclopropene)
IT
     19533-52-9, Cyclopropane, 1,2-diiodo-
        (preparation of)
     19533-52-9 HCAPLUS
RN
     Cyclopropane, 1,2-diiodo- (6CI, 8CI) (CA INDEX NAME)
CN
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L42 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
AN
     1961:37792 HCAPLUS
DN
     55:37792
OREF 55:7309f-i,7310a-d
ED
     Entered STN: 22 Apr 2001
     Chemistry of spiropentane. III. The synthesis and deamination of
     spiropentylamine
     Applequist, Douglas E.; Fanta, George F.
ΑU
CS
     Univ. of Illinois, Urbana
     Journal of the American Chemical Society (1960), 82, 6393-7
SO
     CODEN: JACSAT; ISSN: 0002-7863
DT
     Journal
LA
     Unavailable
CC
     10D (Organic Chemistry: Alicyclic Compounds)
     cf. CA 53, 21701a. Spiropentylamine (I) was synthesized from the Grignard
AB
     reagent of chlorospiropentane (II) with ClCO2Et (III), followed by a
     Curtius degradation. I with aqueous HNO2 yielded a mixture of 2(IV) and
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3-methylenecyclobutanol (V). The implications of these results with regard to the structure of nonclassical carbonium ions were discussed. (1.8 g.) added at -76° to 0.3 g. Li in tetrahydrofuran, the mixture stirred 22 hrs. at -76° then 5.25 hrs. at -45 to -50°, treated with 1-C10H7NCO in 10 cc. tetrahydrofuran, kept 19 hrs. at room temperature, and bubbled with He which was passed into a cold trap gave 32% spiropentane; the residual mixture poured into 200 cc. iced H2O, concentrated to near dryness, filtered, and the residue extracted with ligroine (b. 60-8°) left 1.58 g. brown insol. powder; the ligroine solution chromatographed on Florisil gave 93 mg. solid, m. 158-9°, which showed an infrared spectrum similar to that of (1-C10H7)2. II (10.57 g.) and 7.7 cc. EtBr in 35 cc. tetrahydrofuran added under N to 10.00 g. ground Mg, 20 cc. dry tetrahydrofuran, and a crystal of iodine, the mixture refluxed 7.3 hrs., cooled to room temperature, added during 2 hrs. with stirring at 0° to 39.3 cc. III in 100 cc. tetrahydrofuran under N, the mixture kept at room temperature overnight, and worked up gave 49.3% approx. 85%-pure Et spiropentanecarboxylate (VI), b17 61-9°. The Grignard reagent from a similar run in Et2O treated with 1-C10H7NCO gave 6% N-(1naphthyl) spiropentanecarboxamide, m. 167-9° (chromatographed on Florisil) (C6H6-petr. ether). VI (7.25 q.) in 15 cc. absolute EtOH added dropwise with stirring to refluxing 85% N2H4.H2O during 50 min., the mixture refluxed 2 hrs. with stirring, and evaporated gave 4.5 g. spiropentanecarboxylic acid hydrazide (VII), m. 115-17.5° with softening at about 100° (C6H6). VII (2.929 g.) in 54 cc. H2O  $\,$ treated with 13.5 cc. 6N HCl and 60 cc. 5:3 C6H6-heptane, the mixture cooled to -5 to -10°, treated with stirring during 20 min. with 3.00 g. NaNO2 in 6 cc. H2O, the organic phase dried, refluxed 5 hrs., treated with 8.65 g. 2-C10H7OH in 60 cc. hot C6H6 and 0.1 cc. 10% Et3N in heptane, the mixture refluxed 91 hrs., evaporated, and the residue sublimed at about 60° in vacuo to remove excess 2-C10H7OH gave 3.992 g. 2-naphthyl spiropentylcarbamate (VIII), m. 117-18.5° (C6H6-petr. ether); 0.434 g. 2nd crop. VIII (0.103 g.) and 5 cc. N NaOH shaken 47.5 hrs. at room temperature, acidified with 3N HClO4, extracted with Et2O to remove 56.0 mg. 2-C10H7OH, adjusted to pH 8, shaken about 1 hr. at room temperature with 0.49 ml. PhNCS, and worked up yielded 59.8 mg. (crude) 1-spiropentyl-3-phenyl-2thiourea, m. 104-7° (petr. ether). The attempted hydrolysis of II with moist Ag2O was unsuccessful. II (66.4 mg.) refluxed 12.25 hrs. with 0.48 g. AgNO3 in 8 cc. H2O and kept 2 days at room temperature gave only about 3 mg. AgCl. VIII (2.004 g.) and 108 cc. N NaOH shaken 42 hrs., acidified with 3N HClO4, washed with Et2O, diluted to 200 cc. with H2O, adjusted to pH 1.23 with HClO4, treated with 2.202 g. NaNO2 in 50 cc. H2O, the mixture kept 41 hrs. at room temperature, and worked up with Et2O gave 4.311 g. mixture of Vand IV (32.5 and 6.7% yield, resp.) contaminated with about 3% of 2 minor components. V (70 mg.) in CCl4 and Et2O containing 48 mg. AcOH refluxed 55 min. with 0.394 g. 3,5-(O2N)2C6H3COCl and 1 cc. C5H5N, poured into iced H2O, and the product isolated with Et2O gave 76 mg. 3,5-dinitrobenzoate of V, m. 100-3.5° (softening at 94°). The infrared absorption spectra of IV and V were recorded. Infrared spectra (of spiropentane derivs.) Deamination (of spiropentylamine)

IT

IТ

IT

IT Carbonium compounds

(structure of)

IT 157-40-4, Spiropentane

(chemistry of)

IT 17202-69-6, Spiropentanamine

(preparation and deamination of)

6142-68-3, Spiropentanecarboxylic acid, ethyl ester 6142-69-4, Spiropentaneoarboxamide, N-1-naphthyl-6142-70-7, Spiropentanecarboxylic acid, hydrazide 6142-72-9, Urea, 1-phenyl-3-spiropentyl-2-thio-41527-50-8, Cyclobutanol, 2-methylene- 68423-20-1, Cyclobutanol, 104396-40-9, Cyclobutanol, 3-methylene-, 3-methylene-3,5-dinitrobenzoate 408331-01-1, 2-Naphthol, spiropentanecarbamate 408331-01-1, Spiropentanecarbamic acid, 2-naphthyl ester (preparation of)

L42 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN AN 1930:16890 HCAPLUS DN 24:16890 OREF 24:1848c-i,1849a-c Entered STN: 16 Dec 2001 TI Cyclopropene and some of its derivatives AU Dem'Yanov, N. Ya.; Doyarenko, M. N. SO Bull. acad. sci. union rep. soviet social., Classe sci, phys. math. ( 1929), (No. 7), 653-65 DT Journal LΑ Unavailable 10 (Organic Chemistry) CC GΙ For diagram(s), see printed CA Issue. cf. C. A. 17, 989; 18,974. The expts. were undertaken for the purpose of establishing the most favorable condition for the formation of cyclopropene (I) from the base (the hydroxide of CH2.CH2.CH.NMe3I), to study the behavior of I on heating with Al2O3 and to prep.some new derivs. of I, such as glycol, cyclopropanone and diiodocyclopropane. D. and D. succeeded only in preparing the last-named compound The application of Wagner's method for the preparation of glycols from unsatd. hydrocarbons resulted only in the formation of formic and other tarry acids. By the action of H2O, PbO and Ag2.CO4 + H2O on the dibromide of I only acrolein and polymers were obtained. The action of H2O alone on the bromide at temps. up to 150° resulted in the formation of acrolein (an isomer of I). Above 150° a hard dark resin contg.O resulted. The mechanism of the acrolein formation may be presented as follows: Ingold (C. A. 13, 2016) claims to have obtained the semicarbazone of cyclopropanone, CH2.CH2.C:O, but did not isolate it in a free state. It appears that derivs. of cyclopropane contg.OH, CH2 or CH, C, O which are attached through double bonds to the C atoms of the ring cannot exist, or exist only under special conditions and are less stable than the other derivs., such as the homologs, the halides, CO2H acids, nitriles, etc. Exptl. part.-Ten expts. were performed to establish the influence of heat on the yield of I from the base. It was found that at higher temps. (actual temperature not given) the yield of I decreases while the formation of allylene increases. Thus at a lower temperature 43% of I and 2% of allylene are formed while at a higher temperature the amts. are 37 and 13%, resp. The action of H2O on the dibromide of I. 0.5 g. dibromide and 5 cc H2O were heated in a sealed tube at temps.varying from 105° to 165°.At 105° no reaction took place; at 120 5°, 2.9% of Br reacted; at 155 65° the reaction was complete. The reaction products consisted of aerolein and a dark hard substance, insol. in Et20 and EtOH, containing 70% C, 6.4% H and 17.6% O (by difference) which corresponds to C5H6O. The product was probably formed by condensation of acrolein; 2C3H4O - H2C = C6H6O. The action of H2O in the presence of Ag2Co3 and PbO.-Twenty cc.H2O, 3.35 g. dibromide and 1.5 mols. moist Ag2CO3 were heated in a sealed tube at 100-110° for 20 hrs., 42% dibromide reacted. As with H2O, acrolein and a polymer were formed.Fifteen cc. H2O, 2g. dibromide and 3.3 g. PbO were heated in a sealed tube at 150-160° for 4.25 hrs. The reaction products were the same as above. The diiodide of I. Six g. I in 3.5 cc. abs.EtOH was added to I (prepared from 11.5 g. dibromide, Zn dust and 57%EtOH) at 0°. 0.5 g. of the iodide, washed with a large amount of dilute NaOH, was obtained. The iodide decomps. on standing or heating. It was purified by distilling it with steam. I 86.17%, calcd.for C3H4I2, 86.38; d40 2.7537, d14 2.725,nD14 1.6765, mol. refraction, calculated 39.45, found 40.58, exalation 1.13. It solidifies in liquid CO2 and melts at -5°. The action of KMnO4 on I.-I (prepared from the dibromide) was treated with 0.5% KMnO4 solution in an ice bath. Avolatile aldehyde was detected in the gaseous portion. The liquid portion contained HCO2H and an unidentified tarry acid. No glycol was formed. The action of high temperature in the presence of Al2O3.-I (prepared from the base and not freed from accompanying small amts. of allylene) was passed through a 35-cm.long glass tube containing 10 g. Al2O3 at a temperature of 245-55° and

345-55°. The gaseous reaction products were treated with Br and a

bromide of the approx. compn.C3H6Br2 was obtained. It was probably propylene dibromide, as propylene could have been formed from the admixed allylene. D. and D. therefore conclude that no appreciable isomerization of I to allylene took place. The liquid reaction products consisted of a volatile polymer of I, its analysis corresponding to C3H4, and a non-volatile more complex polymer.

IT Hydrolysis

(of 1,2-dibromocyclopropane)

IT Oxidation

(of cyclopropene)

IT 2781-85-3, Cyclopropene

(and derivs.)

IT 19533-52-9, Cyclopropane, 1,2-diiodo- 31507-76-3, Ammonium, cyclopropyltrimethyl-, hydroxide 52304-09-3, Capric acid,  $\alpha$ -butyl-60948-90-5, Caprylic acid,  $\alpha$ -amyl- 60948-91-6, Caprylic acid,  $\alpha$ -hexyl- 104186-32-5, Pelargonic acid,  $\alpha$ -amyl- (preparation of)

RN 19533-52-9 HCAPLUS

CN Cyclopropane, 1,2-diiodo- (6CI, 8CI) (CA INDEX NAME)



=> b hcao FILE 'HCAOLD' ENTERED AT 14:02:34 ON 18 JUL 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

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This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> d all 140 tot

L40 ANSWER 1 OF 1 HCAOLD COPYRIGHT 2006 ACS on STN

AN CA55:7310d CAOLD

TI cyclopropene - (V) reactions of cyclopropene

AU Wiberg, Kenneth B.; Bartley, W. J.

IT 623-73-4 883-40-9 2781-85-3 16554-83-9 16837-85-7 19533-50-7 19533-52-9 20561-09-5 76936-98-6 98334-65-7 104396-40-9 116662-01-2 117882-25-4

```
L44 ANSWER 1 OF 9 USPATFULL on STN
       2004:101633 USPATFULL
AN
TI
       Stable ethylene inhibiting compounds and methods for their preparation
IN
       Jacobson, Richard Martin, Chalfont, PA, UNITED STATES
       Kelly, Martha Jean, Collegeville, PA, UNITED STATES
       James, William Nixon, JR., Hatfield, PA, UNITED STATES
                                20040422
PΙ
       US2004077502
                           A1
                                20030730 (10)
ΑI
       2003US-0630282
                           A1
PRAI
       2002US-401308P
                            20020806 (60)
DT
       Utility
FS
       APPLICATION
       Rohm and Haas Company, 100 Independence Mall West, Philadelphia, PA,
LREP
CLMN
       Number of Claims: 8
ECL
       Exemplary Claim: 1
       No Drawings
DRWN
LN.CNT 617
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A method to inhibit the ethylene response in plants with cyclopropene
AB
       compounds by first generating stable cyclopropane precursor compounds
       and then converting these compounds to the gaseous cyclopropene
       antagonist compound by use of a reducing or nucleophilic agent.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 653605-61-9P
        (precursor and reduction with zinc; cyclopropene derivative as ethylene
        inhibiting compds.)
RN
     653605-61-9 USPATFULL
CN
     Cyclopropane, 1,2-diiodo-1-methyl- (9CI) (CA INDEX NAME)
IT
     653605-61-9P
        (precursor and reduction with zinc; cyclopropene derivative as ethylene
        inhibiting compds.)
TT
     105285-97-0P, trans-1,2-Diiodocyclopropane 653605-59-5P
      653605-60-8P
        (precursor; cyclopropene derivative as ethylene inhibiting compds.)
=> d bib abs hitstr 144 2-9
    ANSWER 2 OF 9 USPATFULL on STN
       1998:14411 USPATFULL
AN
TI
       Fluoroiodocarbon blends as CFC and halon replacements
       Nimitz, Jonathan Shelley, Albuquerque, NM, United States Lankford, Lance Harrell, Newcastle, CA, United States
IN
PA
       Ikon Corporation, Carson City, NV, United States (U.S. corporation)
PΙ
       US---5716549
                                19980210
ΑI
       1996US-0701669
                                19960822 (8)
       Continuation of Ser. No. 1993US-0027227, filed on 5 Mar 1993, now
RLI
       patented, Pat. No. US---5611210
ΤП
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Anthony, Joseph D.
LREP
       Dinsmore & Shohl LLP
CLMN
       Number of Claims: 40
ECL
       Exemplary Claim: 1
       No Drawings
DRWN
LN.CNT 1268
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

As new set of effective, environmentally safe, nonflammable, low-toxicity refrigerants, solvents, foam blowing agents, propellants, and firefighting agents is disclosed. The agents are clean, electrically nonconductive, and have short atmospheric lifetimes, zero ozone-depletion potential, and low global warming potentials. The agents comprise at least one fluoroiodocarbon agent satisfying the general formula C.sub.a H.sub.b Br.sub.c Cl.sub.d F.sub.e I.sub.f N.sub.g O.sub.h, wherein a is between and including 1 and 8; b is between and including 0 and 2; c, d, g, and h are each between and including 0 and 1; e is between and including 1 and 18; and f is between and including 1 and 2, either neat or mixed with additives selected from the group consisting of: alcohols, esters, ethers, fluoroethers, hydrocarbons, hydrofluorocarbons, and perfluorocarbons.

L44 ANSWER 3 OF 9 USPATFULL on STN AΝ 97:114860 USPATFULL TI Fluoroiodocarbon blends as CFC and halon replacements Nimitz, Jonathan Shelly, Albuquerque, NM, United States IN Lankford, Lance Harrell, Newcastle, CA, United States PA Ikon Corporation, Carson City, NV, United States (U.S. corporation) ΡI US---5695688 19971209 1996US-0707960 ΑI 19960910 (8) Division of Ser. No. 1995US-0414566, filed on 31 Mar 1995, now patented, RLI Pat. No. US---5562861 which is a division of Ser. No. 1993US-0027227, filed on 5 Mar 1993, now patented, Pat. No. US---5611210 DT Utility FS Granted Primary Examiner: Anthony, Joseph D. EXNAM LREP Dinsmore & Shohl LLP CLMN Number of Claims: 18 Exemplary Claim: 1 ECL DRWN No Drawings LN.CNT 1116 CAS INDEXING IS AVAILABLE FOR THIS PATENT. A new set of effective, environmentally safe, nonflammable, low-toxicity refrigerants, solvents, foam blowing agents, propellants, and firefighting agents is disclosed. The agents are clean, electrically nonconductive, and have short atmospheric lifetimes, zero ozone-depletion potential, and low global warming potentials. The agents comprise at least one fluoroiodocarbon agent satisfying the general formula C.sub.a H.sub.b Br.sub.c Cl.sub.d F.sub.e I.sub.f N.sub.g O.sub.h, wherein a is between and including 1 and 8; b is between and including 0 and 2; c, d, g, and h are each between and including 0 and 1; e is between and including 1 and 18; and f is between and including 1

and 2, either neat or mixed with additives selected from the group consisting of: alcohols, esters, ethers, fluoroethers, hydrocarbons,

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 22485-44-5, Iodopentafluorocyclopropane

(fluoroiodocarbon blends as CFC and Halon replacements)

hydrofluorocarbons, and perfluorocarbons.

RN 22485-44-5 USPATFULL

CN Cyclopropane, pentafluoroiodo- (8CI, 9CI) (CA INDEX NAME)

L44 ANSWER 4 OF 9 USPATFULL on STN

AN 97:103950 USPATFULL

TI Fluoroiodocarbon blends as CFC and halon replacements

IN Nimitz, Jonathan Shelley, Albuquerque, NM, United States

Lankford, Lance Harrell, Newcastle, CA, United States
PA Ikon Corporation, Carson City, NV, United States (U.S. corporation)

PI US---5685915 19971111

AI 1994US-0268587 19940630 (8)

RLI Division of Ser. No. 1993US-0027227, filed on 5 Mar 1993, now patented,

Pat. No. US---5611210

DT Utility

FS Granted

EXNAM Primary Examiner: Anthony, Joseph D.

LREP Dinsmore & Shohl LLP CLMN Number of Claims: 32 ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1195

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A new set of effective, environmentally safe, nonflammable, low-toxicity refrigerants, solvents, foam blowing agents, propellants, and firefighting agents is disclosed. The agents are clean, electrically nonconductive, and have short atmospheric lifetimes, zero ozone-depletion potential, and low global warming potentials. The agents comprise at least one fluoroiodocarbon agent satisfying the general formula C.sub.a H.sub.b Br.sub.c Cl.sub.d F.sub.e I.sub.f N.sub.g O.sub.h, wherein a is between and including 1 and 8; b is between and including 0 and 2; c, d, g, and h are each between and including 0 and 1; e is between and including 1 and 18; and f is between and including 1 and 2, either neat or mixed with additives selected from the group consisting of: alcohols, esters, ethers, fluoroethers, hydrocarbons, hydrofluorocarbons, and perfluorocarbons.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 22485-44-5, Iodopentafluorocyclopropane

(fluoroiodocarbon blends as CFC and Halon replacements)

RN 22485-44-5 USPATFULL

CN Cyclopropane, pentafluoroiodo- (8CI, 9CI) (CA INDEX NAME)



IN

L44 ANSWER 5 OF 9 USPATFULL on STN

AN 97:91124 USPATFULL

TI Methods and compositions for sterilization of articles

Nimitz, Jonathan Shelley, Albuquerque, NM, United States

Lankford, Lance Harrell, Newcastle, CA, United States

PA Ikon Corporation, Carson City, NV, United States (U.S. corporation)

PΙ US---5674451 19971007 ΑI 1995US-0401384 19950217 (8) RLI Continuation of Ser. No. 1993US-0027227, filed on 5 Mar 1993 DT Utility FS Granted EXNAM Primary Examiner: Anthony, Joseph D. LREP Dinsmore & Shohl LLP Number of Claims: 10 CLMN ECL Exemplary Claim: 1 No Drawings DRWN LN.CNT 1089 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods for sterilization of an article comprising contacting the article with a blend comprising an ethylene oxide sterilant and a propellant. The propellant comprises a fluoroiodocarbon of the general formula C.sub.a H.sub.b Br.sub.c Cl.sub.d F.sub.e I.sub.f N.sub.g O.sub.h, wherein a is between and including 1 and 8, b is between and including 0 and 2, c, d, g and h are each between and including 0 and 1, e is between and including 1 and 17, and f is between and including 1



L44 ANSWER 6 OF 9 USPATFULL on STN AN97:21660 USPATFULL TT Fluoroiodocarbon blends as CFC and halon replacements IN Nimitz, Jonathan S., Albuquerque, NM, United States Lankford, Lance H., Newcastle, CA, United States PA Ikon Corporation, Carson City, NV, United States (U.S. corporation) ΡI US---5611210 19970318 1993US-0027227 19930305 (8) AΙ DT Utility FS Granted EXNAM Primary Examiner: Gibson, Sharon A.; Assistant Examiner: Anthony, Joseph LREP Dinsmore & Shohl LLP CLMN Number of Claims: 20 ECL Exemplary Claim: 1 DRWN No Drawings LN.CNT 1184 CAS INDEXING IS AVAILABLE FOR THIS PATENT. A new set of effective, environmentally safe, nonflammable, low-toxicity refrigerants, solvents, foam blowing agents, propellants, and firefighting agents is disclosed. The agents are clean, electrically nonconductive, and have short atmospheric lifetimes, zero ozone-depletion potential, and low global warming potentials. The agents comprise at least one fluoroiodocarbon agent satisfying the general formula C.sub.a H.sub.b Br.sub.c Cl.sub.d F.sub.e I.sub.f N.sub.g O.sub.h, wherein a is between and including 1 and 8; b is between and including 0 and 2; c, d, g, and h are each between and including 0 and 1; e is between and including 1 and 18; and f is between and including 1 and 2, either neat or mixed with additives selected from the group consisting of: alcohols, esters, ethers, fluoroethers, hydrocarbons,

hydrofluorocarbons, and perfluorocarbons.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 22485-44-5, Iodopentafluorocyclopropane

(fluoroiodocarbon blends as CFC and Halon replacements)

RN 22485-44-5 USPATFULL

CN Cyclopropane, pentafluoroiodo- (8CI, 9CI) (CA INDEX NAME)



L44 ANSWER 7 OF 9 USPATFULL on STN

AN 97:15810 USPATFULL

TI Fluoroiodocarbon blends as CFC and halon replacements

IN Nimitz, Jonathan S., Albuquerque, NM, United States

Lankford, Lance H., Newcastle, CA, United States

PA Ikon Corporation, Carson City, NV, United States (U.S. corporation)

PI US---5605647 19970225

AI 1994US-0268583 19940630 (8)

RLI Division of Ser. No. 1993US-0027227, filed on 5 Mar 1993

DT Utility

FS Granted

EXNAM Primary Examiner: Gibson, Sharon; Assistant Examiner: Anthony, Joseph D.

LREP Dinsmore & Shohl LLP

CLMN Number of Claims: 34

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1256

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

An an about the analysis of the street of effective, environmentally safe, nonflammable, low-toxicity refrigerants, solvents, foam blowing agents, propellants, and firefighting agents is disclosed. The agents are clean, electrically nonconductive, and have short atmospheric lifetimes, zero ozone-depletion potential, and low global warming potentials. The agents comprise at least one fluoroiodocarbon agent satisfying the general formula C.sub.a H.sub.b Br.sub.c Cl.sub.d F.sub.e I.sub.f N.sub.g O.sub.h, wherein a is between and including 1 and 8; b is between and including 0 and 2; c, d, g, and h are each between and including 0 and 1; e is between and including 1 and 18; and f is between and including 1 and 2, either neat or mixed with additives selected from the group consisting of: alcohols, esters, ethers, fluoroethers, hydrocarbons, hydrofluorocarbons, and perfluorocarbons.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 22485-44-5, Iodopentafluorocyclopropane

(fluoroiodocarbon blends as CFC and Halon replacements)

RN 22485-44-5 USPATFULL

CN Cyclopropane, pentafluoroiodo- (8CI, 9CI) (CA INDEX NAME)



L44 ANSWER 8 OF 9 USPATFULL on STN

AN 96:91783 USPATFULL

ТT Fluoroiodocarbon blends as CFC and halon replacements IN Nimitz, Jonathan S., Albuquerque, NM, United States Lankford, Lance H., Newcastle, CA, United States IKON Corporation, Carson City, NV, United States (U.S. corporation) PA ΡI US---5562861 19961008 ΑI 1995US-0414566 19950331 (8) RLI Division of Ser. No. 1993US-0027227, filed on 5 Mar 1993 DTUtility FS Granted Primary Examiner: Gibson, Sharon; Assistant Examiner: Anthony, Joseph D. EXNAM LREP Dinsmore & Shohl CLMN Number of Claims: 16 Exemplary Claim: 1 ECL DRWN No Drawings LN.CNT 1115 CAS INDEXING IS AVAILABLE FOR THIS PATENT. A new set of effective, environmentally safe, nonflammable, low-toxicity refrigerants, solvents, foam blowing agents, propellants, and firefighting agents is disclosed. The agents are clean, electrically nonconductive, and have short atmospheric lifetimes, zero

ozone-depletion potential, and low global warming potentials. The agents comprise at least one fluoroiodocarbon agent satisfying the general formula C.sub.a H.sub.b Br.sub.c Cl.sub.d F.sub.e I.sub.f N.sub.g O.sub.h, wherein a is between and including 1 and 8; b is between and including 0 and 2; c, d, g, and h are each between and including 0 and 1; e is between and including 1 and 18; and f is between and including 1 and 2, either neat or mixed with additives selected from the group consisting of: alcohols, esters, ethers, fluoroethers, hydrocarbons, hydrofluorocarbons, and perfluorocarbons.

CAS INDEXING IS AVAILABLE FOR THIS PATENT. 22485-44-5, Iodopentafluorocyclopropane

(fluoroiodocarbon blends as CFC and Halon replacements)

RN 22485-44-5 USPATFULL

CN Cyclopropane, pentafluoroiodo- (8CI, 9CI) (CA INDEX NAME)

$$F$$
 $F$ 
 $F$ 
 $F$ 

L44 ANSWER 9 OF 9 USPATFULL on STN 95:76011 USPATFULL AN Fluoroiodocarbon blends as CFC and halon replacements TТ Nimitz, Joathan S., Albuquerque, NM, United States IN Lankford, Lance H., Newcastle, CA, United States PA Ikon Corporation, Alburquerque, NM, United States (U.S. corporation) US---5444102 PΙ 19950822 1994US-0269324 AΙ 19940630 (8) RLI Division of Ser. No. 1993US-0027227, filed on 5 Mar 1993 DTUtility FS Granted EXNAM Primary Examiner: Wu, Shean; Assistant Examiner: Anthony, Joseph D. Lowe, Price, LeBlanc & Becker LREP Number of Claims: 11 CLMN ECL Exemplary Claim: 1 DRWN No Drawings LN.CNT 1114 CAS INDEXING IS AVAILABLE FOR THIS PATENT. A new set of effective, environmentally safe, nonflammable, low-toxicity AB refrigerants, solvents, foam blowing agents, propellants, and firefighting agents is disclosed. The agents are clean, electrically

nonconductive, and have short atmospheric lifetimes, zero ozone-depletion potential, and low global warming potentials. The agents comprise at least one fluoroiodocarbon agent satisfying the general formula C.sub.a H.sub.b Br.sub.c Cl.sub.d F.sub.e I.sub.f N.sub.g O.sub.h, wherein a is between and including 1 and 8; b is between and including 0 and 2; c, d, g, and h are each between and including 0 and 1; e is between and including 1 and 18; and f is between and including 1 and 2, either neat or mixed with additives selected from the group consisting of: alcohols, esters, ethers, fluoroethers, hydrocarbons, hydrofluorocarbons, and perfluorocarbons.

```
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 22485-44-5, Iodopentafluorocyclopropane
        (fluoroiodocarbon blends as CFC and Halon replacements)
RN
     22485-44-5 USPATFULL
     Cyclopropane, pentafluoroiodo- (8CI, 9CI) (CA INDEX NAME)
CN
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=> d his

L6

L15

L20

(FILE 'HOME' ENTERED AT 13:25:09 ON 18 JUL 2006)

FILE 'REGISTRY' ENTERED AT 13:25:22 ON 18 JUL 2006 ACT QAZI282F0/A

L1471233) SEA FILE=REGISTRY ABB=ON PLU=ON C3/ESS L2 STR 2427 SEA FILE=REGISTRY SUB=L1 SSS FUL L2 L3 L440 L3 AND 2/I L5 1 C4H6I2 AND L4

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FILE 'REGISTRY' ENTERED AT 13:27:35 ON 18 JUL 2006 1 CYCLOPROPANE/CN L7 L8 1402 1.13.1/RID AND L3

1370 L8 NOT PMS/CI L9

45 L9 AND I/ELS L10

SEL RN 1-3 6 6 13-15 30-36 41-45

19 E1-19 AND L10 L11

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FILE 'REGISTRY' ENTERED AT 13:39:50 ON 18 JUL 2006

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58 L14 FULL SUB=L3 L16

SAV TEM L16 QAZ282F1/A

L17 STR L2

L18 16 L17 SAM SUB=L3

0 L16 AND I/ELS L19 396 L17 FULL SUB=L3

L21 6 L20 AND I/ELS

noble jarrell 18/07/2006

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SAV TEM L21 QAZ282F2/A
L22
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L23
             26 L22 SAM SUB=L3
L24
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L25
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L27
             19 L6, L12, L26
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L28
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L29
             19 E3, E12
                E JACOBSON RICH/AU
L30
             47 E4, E9-10
                E KELLY M/AU
L31
            537 E3,E18-19
                E KELLY MARTHA/AU
L32
             30 E3-5
                E JAMES W/AU
L33
             32 E3
                E JAMES WILLIAM/AU
L34
              2 E3,22
L35.
           8523 (ROHM (L) HAAS)/CS, PA
L36
              1 L27 AND L28-35
             18 L27 NOT L36
L37
             17 L37 AND (PY<=2002 OR AY<=2002 OR PRY<=2002)
L38
L39
             18 L37-38
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L40
                SEL AN
                EDIT /AN /OREF
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L41
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L42
             19 L39, L41
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L43
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L44
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noble jarrell 18/07/2006